DOCUMENT RESUME

ED 244 340	EA 016 768

AUTHOR	Hatry, Harry P.; Greiner, John M.
TITLE	Issues in Teacher Incentive Plans.
INSTITUTION	Urban Inst., Washington, D.C.
SPONS AGENCY	National Inst. of Education (ED), Washington, DC.
PUB DATE	10 Jan 84
NOTE	254p.
PUB TYPE	Information Analyses (070) -- Reports - Research/Technical (143)
EDRS PRICE	MF01/PC11 Plus Postage.
DESCRIPTORS	Career Ladders; Case Studies; Educational Administration; Elementary Secondary Education; *Incentives; Master Teachers; *Merit Pay; Personnel Policy; Program Effectiveness; State Government; *Teacher Effectiveness; *Teacher Evaluation; *Teacher Improvement; Teacher Morale; *Teacher Motivation
IDENTIFIERS	*Performance by Objectives

ABSTRACT

Based on a synthesis of research and on telephone interviews with representatives of 22 school districts, this study analyzes the effectiveness and problems of two types of motivational plans for teachers: merit pay plans in which at least part of a teacher's pay is linked to performance, and nonmonetary performance-by-objectives plans in which performance targets are set for individual teachers and their performance is subsequently monitored. A prefatory summary lists overall findings and recommendations including directions for further research. Part I of the report consists of an introduction and additional chapters considering the objectives of merit pay plans, type and size of rewards, eligibility for merit pay, teacher evaluation methods, other incentive plan design issues, performance-by-objectives plans, issues arising after the plan has been put into operation, integrating the incentive plan with career ladder/master teacher plans, and the role of state governments. Part II presents 16 case reports on individual districts' merit pay plans and performance-by-objectives plans that incorporate plan description and evaluation and suggestions for successful implementation. (MJL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED244340

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

SCOPE OF INTEREST NOTICE
The Eric Facility has assigned this document for proccesing to: EA | SP

In our judgment, this document is also of interest to the Clearinghouses noted to the right. Indexing should refect their special points of view

Issues in Teacher Incentive Plans

Harry P. Hatry
John M. Greiner

January 10, 1984

The Urban Institute
2100 M Street, N.W.
Washington, D.C. 20037

The project reported herein was performed pursuant to a grant from the National Institute of Education, Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education and no official endorsement by the National Institute of Education should be inferred.

EA 016 708

TABLE OF CONTENTS

Page

ACKNOWLEDGMENTS iv

FINDINGS AND RECOMMENDATIONS .... FR

PART I - CHAPTERS 1-10

Chapter 1: Introduction and Scope 1
- Study Methodology 1
- Other Limitations on Our Scope 3
- Objectives of the Research 4
- Content of the Report 5

Chapter 2: What Should Be the Objectives of the Plan? 8

Chapter 3: What Type and Size Rewards Should Be Used? 10
- What Type of Rewards Should Be Used? 10
- How Large Should the Awards Be? Should Every Recipient Receive The Same Size Reward? 14
- What Proportion of a Teacher's Compensation Should Be Linked to Performance? 15
- Should Merit Increases Be in Addition to Across-The-Board, Cost-of-Living, Raises? 16
- How Long Should the Performance Period Be? 17

Chapter 4: Who Should Be Eligible for Awards? 19
- Should Individual or Group Incentives (or a Combination) Be Used? 19
- Should Participation Be Voluntary? 22
- Should Persons Other Than Teachers Be Included in the Incentive Plan? 23
- How Many Persons Should Be Able to Receive Awards? Should There Be Some Form of Quota? 24

Chapter 5: How Should Teacher Performance Be Evaluated? 28
- What Elements Should Be Evaluated? 29
- What Types of Teacher Performance Evaluation Procedures Should Be Used? 31
  - Supervisory Rating Procedures 35
  - Ratings By Peers 42
  - Student Ratings 45
  - Parent Evaluations 49
  - Student Achievement Test Scores 52
  - Use of School District Record Data 60
  - Comparison of Actual Performance to Targeted Performance 62
  - The Use of a Combination of Teacher Performance Evaluation Procedures 65
- How Should Teacher Evaluations Be Linked to Specific Award Amounts 66

Chapter 6: Other Incentive Plan Design Issues....69
  To What Extent Can and Should the Teacher Evaluation Procedures Also Be Used To Identify Ways To Improve Teacher Performance?....69
  To What Extent Should Information on Who Receives Rewards Be Promulgated?....73
  To What Extent Should Teachers and Teacher Associations Participate in the Design and Implementation of the Plan?....75
  How Much Advance Planning and Preparation Time Is Needed to Prepare a Plan?....77
  Should There Be An Appeal Process?....79
  What Preconditions Are Needed For Success?....80

Chapter 7: Performance-By-Objectives Plans For Teachers....82
  Design Issues....85
    Program Coverage....87
    The Structure and Source of Teacher Objectives....87
    The Focus of Teacher Objectives....88
    Selection of Specific Performance Targets....89
    Measuring Target Achievement....92
    The Mechanics of the Objective- and Target-Setting Effort....93
    The Relationship Between PBO and the Teacher Evaluation Process....94
    The Relationship Between Target Achievement, Rewards, and Penalties....95
  Implementation Issues....96
  Operation and Maintenance Issues....98
  The Effectiveness of PBO Programs for Teachers....100

Chapter 8: Issues After The Plan Has Been Put Into Operation....106
  Will Adequate Funds Be Made Available Each Year?....106
  What Provision Should Be Made For Subsequent Evaluation and Revision of the Plan?....107
  Are There Special Activities and Resources Needed For Operating the Plan?....109

Chapter 9: How Should the Incentive Plan Be Integrated With Career Ladder/Master Teacher Plans?....112

Chapter 10: What Should Be The Role of The State Government?....115

PART II - CASE REPORTS

Merit Pay Plans

Bryan Independent School District (TEXAS)....BR-1
Catalina Foothills School District (ARIZONA)....C-1
Evanston Public School (ILLINOIS)....E-1
Houston Independent School District (TEXAS)....H-1
King William County Public Schools (VIRGINIA)....KW-1
Ladue School District (MISSOURI)....LA-1
Lebanon Public School (CONNECTICUT)....L-1

Penn Manor School District (PENNSYLVANIA)............................PM-1
Round Valley School District (CALIFORNIA)............................RV-1
Seiling Public Schools (OKLAHOMA)....................................S-1
Tredyffrin/Easttown School District (PENNSYLVANIA)...................T/E-1

Non-Monetary Performance-By-Objectives-Plans

Brown Deer School District (WISCONSIN)...............................BD-1
Hyde Park Central School District (NEW YORK).........................HP-1
Ridgewood School District (NEW JERSEY)...............................R-1
Salt Lake City School District (UTAH)................................SLC-1
Santa Clara Unified School District (CALIFORNIA).....................SC-1

REFERENCES AND BIBLIOGRAPHY

Acknowledgments

We received considerable assistance in this project from Ms. Jennifer Gudis, an intern from Trinity College (Illinois). She made a major contribution to both the literature review and telephone interview phases of the study. Monroe Dowling, III, an intern from Pomona College (California), provided considerable assistance with the literature review. Dr. Annie Millar of The Urban Institute provided considerable assistance to us with the telephone interviews.

We are especially appreciative of the many school district officials who patiently and thoughtfully shared their experiences and observations with us in connection with our case-study interviews. In addition, we are pleased to acknowledge the comments and suggestions provided by Dr. Bonnie Engle, School Psychologist, Volusia County Public Schools (Florida); Gary Natriello of Johns Hopkins University; Larry Rudner of the National Institute of Education; and Gary Sikes of Stanford University's Center for Education. Finally, James Fox, our National Institute of Education Project Officer, provided us with numerous helpful comments and suggestions throughout the project.

Overall Findings and Recommendations

Our examination focused on two types of motivational plans for teachers: merit pay plans (in which at least part of a teacher's pay is linked to performance) and non-monetary "performance-by-objectives" plans (in which performance targets are set for individual teachers at the beginning of the year and achievement against those targets is subsequently monitored).

The following are our major overall findings. Detailed findings on individual issues are included throughout the various chapters of the report.

1. Successfully introducing teacher incentive plans, whether monetary or non-monetary, is a complex and difficult undertaking. The many elements involved in a plan's design and implementation all need to be handled well or the plan can become of little use--or even counterproductive. (Detailed suggestions on the design and implementation of incentive plans for teachers are provided below.)

2. The information available from past research, school district experiences, and the evaluation literature provides little convincing evidence (that is, evidence with even minimal rigor)--one way or the other--on whether teacher merit pay or performance-by-objectives plans have substantially affected student achievement, teacher retention rates, or the ability to attract new quality teachers. This, however, does not mean that these plans have not had significant impacts in these areas, only that no convincing evidence has yet been developed. There are indications that some plans have produced improvements, but the districts do not have sufficient information to provide convincing suppport of those claims. Only a few of the school districts have conducted formal evaluations of their plans, and even these have suffered from a lack of pre-plan data and from the absence of any consideration of plausible alternate explanations for observed improvements (such as economic conditions that could explain high teacher retention rates in recent years). And we found no multi-site evaluations that had attempted to examine more than one school district in a systematic way that could provide generalizable evidence as to what plan characteristics and what conditions seem associated with the success, or failure, of these plans.

Overall Findings and Recommendations on Monetary Incentive Plans

3. The limited information now available strongly suggests that successfully introducing pay-for-performance plans and sustaining them effectively is complex and difficult, requiring that many elements be done properly. Exhibit 1 in Chapter 1 lists the many issues that a school district needs to consider. If any one element is done poorly or breaks down, the whole process can sour. Especially important requirements for successful merit pay plans appear to be the following: (a) teacher participation and cooperation, or at least the absence of substantial opposition, (b) a teacher evaluation process that participants perceive to be reasonably fair and objective, and (c) the ability to provide significant awards (e.g. $1,000 per year or more) to all teachers who deserve them, even if this is a substantial proportion of the teachers.

4. The evidence that is available indicates that a number of characteristics are associated with positive consequences for monetary incentive plans,

or, conversely, that the absence of these characteristics is often associated with substantial negative consequences for the plans. These lead to the following suggestions for school districts.

- Leave ample time to design and implement the plan, including (a) time to gain teacher participation in its design, (b) time to develop appropriate teacher performance evaluation procedures, and (c) time to train personnel in plan procedures. (Chapter 6)

- Provide significant bonuses ($1,000 or greater) and allow them to be given to a substantial proportion of the teachers that perform meritoriously. If at all possible, use no fixed quota at all. This will reduce the likelihood of complaints of unfairness and favoritism and of discouraging staff that performed well but did not squeeze in under the quota. If the school district cannot be assured of the annual availability of adequate funds for such merit awards, it should not implement a merit pay plan but should instead consider non-monetary incentive plans (discussed later). Problems caused by tight quotas can be severe and can undermine otherwise sound merit pay plans. (Chapter 3)

- Use one-year bonuses rather than permanent salary increases as awards in order to link the added compensation to the period of meritorious performance. (Some long-lived plans, however, do use salary increases as their form of award.) (Chapter 3)

- Ensure substantive participation by teachers in the design, implementation, and monitoring of the plan. This is often recommended by researchers and school officials alike, but it is frequently violated by school districts wanting to move quickly to introduce a merit pay plan. Initial opposition from teacher associations should be expected, and in some districts formal participation may be difficult to achieve. If opposition cannot be overcome and teacher willingness to try the plan (even if they do not actively support it) cannot be obtained, it is likely to be better to develop a non-monetary plan. (Chapter 6)

- When using objective teacher evaluation methods such as student test scores: (a) make explicit provision in the procedure for considering "external" factors such as differences among classes in student ability and motivation, and (b) undertake efforts to develop tests that better match the school district's own curriculum. Both of these suggestions are difficult to implement, but satisfactory answers are needed if such evaluation methods are to be viewed as an equitable basis for merit pay decisions. Houston's approach to the first issue (by using statistical regression analysis to adjust for differences in class characteristics) is one possible technique, but one that needs more development and testing. (It was recently discontinued in Houston as being too difficult for teachers to understand.) (Chapter 5)

- Provide for annual or biennial evaluation of the plan against the school district's objectives to determine whether it continues to be cost-effective. Take corrective action if it is found to be defective. (Chapter 8)

5. We found some unusual variations in monetary plans that appeared to be associated with success. Other school districts should consider these:

(a) Offer a menu of awards, with cash bonuses being but one possibility (as is being tried in the Catalina Foothills and Tempe Union High School Districts, both in Arizona). In such a plan, the teacher chooses whether to take the award in cash, have the district pay for attendance at conferences or workshops, or have the district support special classroom instructional/enrichment projects such as the purchase of a micro-computer, telescope, aquarium, or camera. This type of plan may particularly appeal to the professionalism of teachers. (Chapter 3)

(b) Make the merit plan voluntary. That is, each year before the awards are announced, have teachers indicate formally whether or not they want to be considered for merit pay. This approach was associated with a number of plans that appeared successful or at least that met relatively little opposition from teachers. The requirement that a teacher volunteer in order to be considered for a merit award means that a teacher can avoid the embarrassment of not receiving an award, thereby avoiding what can be a major morale problem. (Chapter 6)

(c) Include a "group" incentive component in the plan. That is, give at least part of the awards to groups of teachers based on the group's performance, as in Houston, Round Valley (California), and Seiling (Oklahoma). This has the advantage of encouraging cooperation within a school district and avoiding the criticism (especially in plans with restrictive quotas) that merit pay will cause divisiveness. The group can be a school (as in Houston and Seiling), specific grade levels (as in Round Valley), or perhaps those teaching particular subject matter (but covering many grade levels). The best approach is likely to be a combination of individual and group incentives, as was done in the three plans mentioned above. (Chapter 4)

(d) Use performance-by-objectives procedures as a way to evaluate employee performance for merit pay plans. This approach entails considerable participation by individual teachers in a highly professional way. If adequate staff training is provided in setting objectives and targets, and adequate procedures are developed to measure target achievement, this process can provide a reasonably objective evaluation approach, one that enables the performance evaluation to be tailored to the character of individual schools, grades, subjects, or classes. (There are a number of pitfalls with this procedure, however; see Chapters 5 and 7.) The approach used by Round Valley (California)--to have a committee rate a teacher's targets at the beginning of the year as to relative difficulty and importance to the school district--is a way to provide more comparable and thus fairer teacher evaluations under this technique. (Chapters 5 and 7)

6. The key technical issue in incentive plans is how to evaluate teacher performance. There are substantial differences of opinion. Despite the considerable work done on teacher evaluation over the years, we found little research that adequately validated any of the major approaches--supervisory ratings, peer ratings, student ratings, achievement of pre-set targets, parent ratings, and even student test scores--as indicators of teacher ability to improve student learning or student affective outcomes (such as self-esteem, relations with others, values, etc.). There has been considerable research on the relationship of various teacher characteristics to student achievement. This research is also relevant to the question of the usefulness of supervisory and peer ratings of teachers for monetary incentive plans. The information we reviewed leaves considerable doubt about the existence of substantive links between specific teaching characteristics (including teacher practices and behavior) and student achievement. Considerably more research appears necessary to compare teacher evaluation approaches and to estimate what each can and cannot do--both individually and in combination. For the present, school districts will probably want to use a combination of teacher evaluation approaches. (Chapter 5)

7. A major problem for school districts at present is the inadequacy of student achievement tests for helping to evaluate teacher performance. Currently such tests often provide inadequate coverage of material that school systems want teachers to teach. There are deficiencies as to content, subjects covered, grade levels covered, and the coverage of both fact-testing and higher-order learning (e.g. creative thinking). Thus, a major need for incentive programs is the development of comprehensive tests of student progress that better match the local school system's curriculum. As these become available, they will permit school districts to better use student testing for teacher performance evaluation. This point was stressed by districts that we talked with whose merit pay systems involved testing. With more comprehensive test coverage, the testing should be able to provide more guidance to teachers and schools concerning learning deficiencies and achievements. (Chapter 5)

8. A key related issue is whether the performance evaluation procedures used to determine merit pay eligibility can also provide information for guiding teacher improvement. Unfortunately, the procedures that seem most likely to be able to provide specific suggestions for teacher improvement are supervisory and peer ratings, which also appear to be the most subjective, the least objective, and the most questionable in terms of validity (in the sense of being significantly related to student achievement). The development and use of student tests that better match the curriculum of the local school district may well permit the district to use those tests both to evaluate teacher performance and to pin-point subject matter where the teaching process needs strengthening. (Chapter 5)

9. Career ladder/master teacher plans are of interest throughout the United States, and numerous variations are appearing. At present, there appears to be even less information about the success of these plans. Most trials are just beginning, and the number of variations is leading to some confusion. Those variations built around new job duties for teachers--such as teaching other teachers and developing curriculum--probably do not fall under the usual definitions of incentive programs that are aimed at encouraging improved performance in one's present job. Thus, plans that move teachers away from teaching students as their major job activity represent quite a different

approach than merit pay and non-monetary performance-by-objective plans. And they probably provide at any given time opportunities for only a small proportion of teachers. On the other hand, some career development plans are a hybrid. They combine features of both merit pay and career ladder plans, providing higher teacher pay grades (and higher status) for a combination of criteria such as performance ratings, participation in special district projects, educational credits, and longevity--but with teaching students still being the teacher's main job. Our findings on merit pay plans also apply to these hybrid plans. (Chapter 9)

Findings and Recommendations on Non-Monetary Performance-by-Objectives Plans (Chapter 7)

10. Non-monetary performance-by-objectives (PBO) programs have potential for encouraging improvements in teacher performance at relatively low cost to school districts while avoiding the hassles often associated with monetary incentive plans. This option should be explored further by school districts.

11. The five PBO programs for teachers that we examined did not appear to exploit the potential of PBO to motivate teachers to perform better. Although these programs gave some limited evidence of improving teacher performance, their motivational effectiveness was compromised by inattention to a number of important design and implementation issues.

12. Nevertheless, evidence from experience and research with PBO for non-teaching personnel in the public and private sectors suggests that PBO programs for teachers can stimulate improved performance if properly designed, implemented, and maintained.

13. We suggest that performance-by-objectives programs be tried by school districts as a motivator of teaching personnel. These trials, however, should attempt to correct the deficiencies identified in past programs. This means trying PBO programs that:

- Cover all, or at least most, staff (e.g. not only non-tenured and other probationary staff but tenured teachers as well).
- Emphasize the use of outcome-oriented targets (and, perhaps, goals involving the periodic completion of special productivity improvement projects).
- Target the achievement of excellence rather than only minimum performance standards or specific performance problems.
- Emphasize the specification of objective criteria and data collection procedures by which target achievement can be measured.
- Provide central coordination and oversight of target quality and difficulty.
- Give recognition to staff with outstanding performance with respect to target achievement.

- Emphasize top-level management support for the PBO effort and take whatever additional steps are needed to ensure that the PBO effort is taken seriously.

- Regularly "revitalize" the program to ensure employee understanding and attention.

- Use the information on target achievement as a major part of the annual teacher evaluation process, and make it clear to teachers what specific role the achievement of targets will play in the evaluation process.

Recommendations to State Governments (Chapter 10)

14. State governments should avoid mandating highly specific requirements relating to teacher incentive plans (including over-specifying teacher evaluation requirements)--at least until there is much better and more convincing evidence that certain practices work well and under a variety of local conditions.

15. States should encourage school districts to experiment with teacher incentive plans but at the same time provide for systematic evaluation of such plans, using compatible evaluation procedures so that the experiences of these pilot districts can later be used to provide guidance to other districts.

Recommendations for Needed National Research

16. The U.S. Department of Education, state departments of education, and/or foundations should sponsor systematic trials by school districts of a variety of teacher motivational plans. These should be accompanied by careful evaluation. Plans should be tested in a variety of settings--large and small, "wealthy" and "poor" districts.

Plan variations that appear highly desirable to include in such trials are:

- Trials that involve a menu of possible awards, including not only monetary bonuses but also such options as attendance at professional conferences or workshops and special purchase of classroom instructional/enrichment materials (similar to the Catalina Foothills School District program in Tucson, Arizona).

- Trials that involve performance by objectives as a way to assess individual teacher performance. These trials should preferably include both monetary plans (such as Round Valley, California) and non-monetary plans (such as Salt Lake City). However, to the extent possible, these trials should avoid the basic deficiencies noted in Chapter 7 and should incorporate the characteristics listed in #13 above.

- Trials that focus on combinations of teacher evaluation procedures, including student test scores, student (and perhaps parent) ratings, target achievement, as well as systematic supervisory ratings (including more structured classroom observations such as the procedures being developed in Florida).

Rigorous evaluation designs (such as controlled evaluations using random assignment) are probably not feasible. (Controlling the trials would be very difficult, and randomization involving teachers would probably be infeasible for monetary plans.) Nevertheless, sites should be carefully evaluated using the same data collection procedures and covering such evaluation criteria as:

- The costs of the plans (administrative as well as award costs, staff time costs as well as out-of-pocket costs);
- Effects on student learning (preferably including both cognitive and affective elements) using a variety of approaches--student test results, student and parent feedback, supervisory ratings, etc.;
- Effects on teaching practices (e.g. did they change because of the plan and in what way?);
- Effects on teacher morale and attitudes; and
- Effects on teacher retention and ability to attract "quality" teachers.

Particular attention should be given in these evaluations to obtaining baseline data on the various evaluative criteria (i.e. data relating to periods before the new plan is implemented)--including baseline student scores and student, parent, and teacher ratings and attitudes.

Two basic types of evaluations will probably be necessary: (1) "after-the-fact" evaluations of plans that have been in operation two or more years (this length of time is needed to assure that the plans have been "shaken down" and that the districts have some reasonable amount of experience with the plan's operation), and (2) evaluations that begin prior to the implementation of the plan and follow the plan's operation for some period of time. The first approach has the advantage of being easier and can be done relatively quickly, but it depends on the existence of trials of the types of plans of interest and the availability of at least minimal pre-plan "baseline" data. The second approach has the advantage that the baseline data should be superior. (It does not have to depend on reconstructing baseline evaluative data, and information such as baseline student and teacher attitudes can be readily collected.) But the second method will require a minimum of 2-3 years to follow the plans long enough to provide meaningful evaluative data on impacts.

17. More work is needed to develop student tests that better match the curriculum of individual school districts and cover all subjects and grade levels. Though this is in part a local matter, it is unlikely to be efficient nationally for each school district to start from scratch in developing such tests. The availability of tests that more adequately indicate the extent to which students are learning what the teachers are trying to teach is a cornerstone to adequate teacher evaluation and teacher incentive plans. Fortunately, this appears to be a direction in which testing is already moving.

18. Field research is needed to examine and compare the validity and coverage of various teacher performance evaluation approaches, including supervisory, student, and parent ratings of teacher impacts (both cognitive and affective) and of teacher classroom performance; student test scores (especially with more locally appropriate tests--as noted above); and performance-by-objectives techniques (these have the added problem of the comparability of individual targets that may reflect differing degrees of importance and difficulty).

19. More attention seems needed on assessing a teacher's impact on affective outcomes for students (positive self-attitudes, personal adjustment, relationships with others, self-reliance, etc.). We found little effort by school districts to use techniques such as parent and student feedback for assessing changes in affective outcomes, nor did we find any relevant methodologies presented in the teacher evalution literature that we examined. Though this is probably a secondary item for the research agenda, measurement of affective outcomes may be important to some school districts.

20. Finally, to help school districts that use supervisory (or peer) ratings of teachers as a major part of their incentive plan (or teacher evaluation process), the development of more "anchored" rating instruments seems badly needed. As discussed in Chapter 5, much more specific definitions and descriptions are needed for each characteristic being rated and for each grade on the rating scale. This is needed to achieve reasonably reliable ratings that will permit different raters, rating different teachers and/or different performance periods, to provide reasonably comparable ratings.

PART I

CHAPTER 1

Introduction and Scope

We report here on a four-month examination of the issues involved in developing incentive plans for teachers. Our examination focused primarily on two types of plans:

- Teacher merit pay plans. These are defined here as a formal process in which a significant amount of a teacher's compensation is based on an explicit and substantive assessment of at least some aspect of teacher performance--and on at least an annual basis.
- Performance-by-objectives plans. This is management by objectives (MBO) as adapted for teachers. Here, teachers and their supervisors jointly set objectives, usually for the school year. Actual performance is subsequently compared to the targeted performance. This process can be used as part of a merit pay plan, but it can also be used as a motivational tool without being directly linked to teacher compensation.

A third type of plan, the career ladder/master teacher/differentiated staffing approach is examined very briefly as it relates to teacher incentive plans. These terms are generally applied to plans in which new positions are established involving special tasks such as teaching other teachers. Higher pay is associated with these positions. However, these do not generally focus on incentives to improve teachers' performance in teaching students.

We exclude from our definition of incentive plans those approaches that primarily provide additional pay for teaching subjects in short supply (such as mathematics and science), for teaching in particular schools that otherwise find it difficult to attract teachers, or for extra education.

Study Methodology

We used two primary procedures: examination of published (and some unpublished) materials, and telephone interviews with representatives of 22 school districts supplemented by examination of materials on the plans in those districts. (Reports on 16 of these are included in Part II.) We also drew on the Urban Institute's previous work on motivational programs for state and local government employees other than teachers and, to a lesser extent, on the experiences of the private sector regarding motivational programs. With the highly limited resources and time available for this study, we were not able to do any on-site data collection at the school districts, nor any significant amount of checking on information furnished to us. This is a major limitation for any examination of the practical problems facing school districts.

Our examination of the published literature focused primarily on merit pay plans. In addition, we more selectively examined a number of related topics that bear directly on important incentive plan issues, including teacher evaluation, research on the relationship between teaching characteristics and evidence on student learning, motivation theory, and student testing. Between the rapidly escalating amount of published material on teacher merit pay and the even greater amounts of material on these other topics, there is a considerable amount of potentially relevant information. In a limited study such as this, it was not possible to cover all these topics comprehensively. Our findings, thus, are by no means definitive, but they do represent our synthesis from a large amount of such materials.

We also had to be quite selective in our telephone interviewing with school districts. There is a rapidly growing number of school districts attempting some variation of these incentive plans. With our limited resources, we focused primarily on those plans that had been in existence for at least a year so that we could examine schools with considerable experience with the plans. We sought interviews from school districts that were reported to have substantial incentive plans and not, for example, locations whose incentives were aimed at only a very small proportion of the teachers or that appeared to represent only minor steps forward from longevity-based approaches. We included in our examination a few districts that had tried plans for a few years and then terminated them--to provide a different perspective. For obvious reasons, administrators of locations having an on-going plan are generally considerably more optimistic about incentive plans than those whose plans have been terminated.

To select the school districts for our telephone interviews, we used reports on individual school districts from articles in professional journals, newspaper articles, and recent national reports of incentive plan experiences. Especially useful were the Educational Research Service's 1979 and 1983 reports on teacher merit pay and M. Donald Thomas' 1979 book on performance-by-objectives plans. Our interviews are not a random sample (we were not seeking statistical data for this report) but a selective sample based on our objective of examining a variety of substantive incentive programs. We would have much preferred to examine many more than the twenty or so districts we interviewed and would have much preferred examining each in greater depth. There clearly is still a great scarcity of descriptive and - more importantly - evaluative information on actual school district experiences with these plans.

Other Limitations on Our Scope

An important issue we have not attempted to examine is the extent to which teaching affects student learning. This has been the subject of considerable debate for many years. A basic assumption behind teacher incentive plans is that teachers can indeed have a non-trivial effect on student learning. For this research, we have accepted this assumption. Some researchers such as Centra and Potter (1980) report that "teacher effects are

We have attempted to lay out the key issues as they became apparent from the literature and the experiences of school systems trying such plans.

We have particularly attempted to identify empirical evidence on the impacts of these plans from the research literature and from evidence available from school districts that have implemented these plans. As stated by Inman (1983), "the present educational pay system does not differentiate between good, bad, or indifferent teachers. For the most part, all teachers are treated the same . . . ." Without substantial evidence to the contrary, it cannot be proven that this is necessarily bad. The burden is on others to provide proof that alternatives such as teacher incentive plans can lead to major improvements worth their costs. The principle "if it works, don't fix it" is an important concern for individual school districts. However, in recent years there has been growing national concern that the educational system is not working the way it should, and this concern escalated greatly in 1983. Now there is much talk about the need to fix the system. A major question facing educational officials is which types of incentive plans, if any, can help fix the system and what steps should be taken to help assure that such plans will be effective.

Content of the Report

The report is divided into two parts. The first part discusses the key issues involved in designing and implementing a plan. Each of Chapters 2-10 discusses a different major issue. The issues this report covers are listed in Exhibit 1. (School districts might want to use this exhibit to help them keep track of the major decisions they need to make in designing and implementing teacher incentive plans.) Chapter 7 focuses solely on non-monetary versions of performance-by-objectives programs. Chapter 9 notes the relation between teacher incentive plans and career ladder/master teacher plans. Our overall findings and recommendations are presented at the beginning of the report.

Part II presents the case reports for a number of school district plans. Each report describes the plan and presents our findings on any readily available evaluative information on the plan. Reports on merit pay plans are presented first (alphabetically) followed by the reports on performance-by-objectives (non-monetary) plans.

Exhibit 1

List of Major Issues For Teacher Incentive Plans

I. What should be the objectives of the plan? (Chapter 2)

II. What type and size of rewards should be used? (Chapter 3)
  - What type of rewards should be used?
  - How large should the awards be? Should every recipient receive the same size reward?
  - What proportion of teachers' compensation should be linked to performance? Should increases be in addition to cost-of-living or other across-the-board adjustments?
  - How long should the performance period be?

III. Who should be eligible for awards? (Chapter 4)
  - Should individual or group incentives (or a combination) be used?
  - Should participation be voluntary?
  - Should persons other than teachers be included?
  - How many persons should be able to receive awards? Should there be some form of quota?

IV. How should teacher performance be evaluated? (Chapter 5)
  - What elements should be evaluated?
  - What type of teacher performance evaluation procedures should be used?
  - How should teacher evaluations be linked to specific award amounts?

V. Other incentive plan design issues (Chapter 6)
  - To what extent can and should the teacher evaluation procedures also be used to identify ways to improve teacher performance?
  - To what extent should information on who receives the awards be promulgated?
  - To what extent should teachers and teacher associations participate in the design and implementation of the plan?
  - How much advance planning and preparation time is needed?
  - Should there be an appeal process?
  - What preconditions are needed for success?

VI. What are the issues and potential associated with non-monetary performance-by-objectives plans? (Chapter 7)

VII. Issues after the plan has been put into operation (Chapter 8)
  - Will adequate funds be made available each year?
  - What provision for subsequent evaluation and revision of the plan should be made?
  - Are there special activities and resources needed for operating the plan?

VIII. How should the incentive plan be integrated with career ladder/master teacher plans? (Chapter 9)

IX. What should be the role of the State government? (Chapter 10)

CHAPTER 2

What Should Be the Objectives of The Plan?

Each school district introducing a merit pay plan will have its own particular objectives. The following five objectives are prevalent and seem to be the primary ones:

1. To improve instruction and thus improve student achievement.
2. To improve the ability of the system to retain quality teachers.
3. To improve the ability of the school system to recruit quality teachers.
4. To make increased pay more acceptable to local officials and to the public, thus increasing their willingness to provide funding for education and extra compensation for teachers.
5. To pay teachers more fairly, based on the value of their contribution.

The basic assumption behind the first objective, improving instruction and thus student achievement, is that these plans can motivate teachers to alter their activities in ways that can improve student learning. Objectives No. 2 and 3 assume that teachers will perceive the incentives as greater opportunities for a rewarding career, encouraging quality personnel to enter and remain in the teaching field. The fourth objective is important to those believing that teachers are underpaid and that incentive plans are one way to help correct this. The assumption is that linking at least part of a teacher's pay to performance will make it easier to gain public support for increased teacher compensation.

Finally, objective No. 5 provides a justification for monetary incentive plans even if there is no specific intention that the plans motivate teachers to improve their performance. This objective is based on the basic principle that employees that do better should earn more. This is a much less demanding objective than No. 1 in the sense that it does not require that additional pay motivate teachers to perform better and thus does not require that outcomes such as improved student achievement occur because of the incentive plan.

The degree of success of a plan in achieving the first four objectives can potentially be determined through an examination of empirical evidence. No such support is required for the last objective, but even here there is still the question as to whether the particular procedure for determining which teachers have performed better is valid.

School districts should try to be explicit about what they hope the plan will accomplish and provide for periodic feedback on how well the plan is achieving its objectives. We found that most districts did not formally evaluate their plan's accomplishments, even infrequently (see Chapter 8 for further discussion).

CHAPTER 3

What Type and Size Rewards Should Be Used?

In this chapter we discuss what types of rewards should be used, how large they should be, and how long the performance period should be.

Two types of plans are the primary focus of this report: plans that relate teacher compensation to performance, and those that are nonmonetary but use some form of performance-by-objectives. The advantages and disadvantages of the latter are discussed in Chapter 7. This chapter pertains only to monetary plans.

What Type of Rewards Should Be Used?

We found three forms of rewards in use: (1) permanent changes to teachers' salaries, (2) bonuses over and above the teacher's salary, and (3) a "menu" of awards where the teacher can choose between taking the award in cash, attendance at a conference, or special teaching materials.

1. Salary adjustments. Traditionally, salary increases for public employees have been based primarily on longevity and educational credits. (This applies to both education and other local and state government personnel.) Employee performance has traditionally been used primarily to identify whether employees have not been performing adequately and thus are subject to a probation period or discharge.

Incentive plans tied to salary increases attempt to link such increases at least partially to performance. Examples of such plans include those of Ladue (Missouri), Lake Forest (Illinois), Bristol (Vermont), King William (Virginia), and Evanston (Illinois). In such plans, the merit increase becomes a part of the person's basic salary.

The major drawback to salary increases is that they are "permanent"; once given, it is usually quite difficult to withdraw them. If a person's high performance in one year does not continue in future years, that person will nevertheless continue to receive the increased salary.

It is conceivable that the entire salary could be related to performance. However, in almost all actual cases, the basic salary (even under pay-for-performance plans) is still determined to a considerable extent by factors other than performance, such as longevity and education. Incentive plans subject only part of the salary to the performance test.

Seldom do plans provide for salary reductions for poor performance. There are exceptions however. King Williams' new plan could potentially involve sizeable reductions in salary if the teacher has already been awarded substantial salary increases, based in part on performance. Thus, a teacher having a poor year could fall back to the basic salary scale, a possible loss of several thousand dollars per year (see King William case report). The Bristol (Vermont) plan provides for salary changes of plus or minus 5% (ERS 1983, p. 154). In the Parkway (Missouri) plan, a poorly performing teacher could regress up to one level on the salary schedule, but only once every two years (ERS 1979, p. 53). Note that state law may inhibit such salary reductions. Thus for school districts in Missouri, under state law a salary decrease is considered to be a demotion and must be accompanied by a public hearing (a major undertaking).

The limited information we have indicates that even where salary reductions are possible under the plan, they have seldom been implemented. On the other hand, one district pointed out that a person who consistently received no performance-related salary increase would, in effect, not be keeping pace with the cost of living and eventually would be released. Several instances where teachers received no salary increases at all were, in fact, reported.

2. Bonuses. The majority of recent merit pay plans have used bonuses (over two-thirds of the districts that we examined). These are one-time payments. Bonuses have the advantage that a person is not "permanently" rewarded for a high level of performance that occurs in one year. The award is only for the particular year in which the person performs well.

Bonus plans do not provide compensation reductions in periods of poor performance (other than not again receiving the bonus). Only part of the employee's compensation is actually affected by the pay-for-performance linkages when bonuses are used; the employee's basic salary is unaffected by the pay-for-performance process.

3. A "menu" of awards. The "menu" approach is quite unusual. The Catalina Foothill school district in Tucson, Arizona is the primary example that we found. (However, a second school district also in Arizona--Tempe Union--has begun to use this approach; see ERS 1983.) Under this type of plan, teachers have an option as to the form of the award they receive. In Catalina the teachers may choose to take their bonus in cash or they may choose another form, including attendance at professional conferences or funds to support classroom projects, e.g. the purchase of instructional/enrichment materials for the classoom (such as a micro-computer, a telescope, an aquarium, or a camera--see the Catalina case report).

This approach has some important advantages. It gives the teacher a degree of choice as to the reward and, in particular, it may appeal to the inherent professionalism of teachers. Many teachers have expressed concern that they are professionals dedicated to teaching and that it is an insult to use money as an inducement. Those who believe that money is not a motivator for teachers are likely to find appealing the option of awards that afford opportunities for professional development or classroom projects. These may provide a more acceptable reward to many teachers than dollars. In Catalina, approximately 30% of the awards for the first three years of the plan (through 1982-83) were paid in cash (this percentage became somewhat higher in the last year); about 50% were for participation in conferences or workshops; and about 13% were for classroom projects/materials. Potential arguments against such an approach are that all teachers should receive the same opportunities for professional development and classroom enrichment materials, and that poorer teachers are those most in need of professional development.

In the private sector there has been some experimentation with offering employees a menu of awards, but these have usually focused on the choice of fringe benefits such as extra days off or extra pension payments. And various private sector compensation systems give managers the option of deferred compensation. Such options have been tried on a few occasions in state and local government non-educational agencies. Only in the teaching area (Catalina) have we found an example of award options that can directly help the clients of the service rather than solely benefitting the employee. This may be a unique opportunity for the teaching profession.

It is dangerous to generalize from one case, but the virtues, and apparent absence of major drawbacks, make this an option that we believe deserves widespread consideration by school districts.

. . . .

We have not been able to find any significant body of research that indicates which of these types of rewards is a better motivator in or out of education. The menu approach is intriguing and warrants further trials and experimentation by school districts. Bonuses, with their feature of rewarding persons only for the year in which the meritorious performance occurs, seem to have an advantage over permanent salary increases while being the preferred choice of a majority of the new performance-based incentive plans.

How Large Should the Awards Be? Should Every Recipient Receive the Same Size Reward?

There is considerable agreement in all sectors, private and public (both in educational and noneducational agencies), that awards need to be "large enough" to be adequate motivators. But how large is "large enough" is not indicated by the research to date. The cost of the awards is the major cost factor for a school district using monetary incentive plans. Therefore along with the decision as to how many persons should get awards each year (an issue discussed in Chapter 4), the size of the awards is a matter of considerable importance.

Monetary awards of $200 to $300 per year or less are likely to have little motivational value. Incentives of about $1,000 and higher appear to avoid criticisms about size. We found awards of up to about $6,000, but in those programs (Houston and King William, Virginia) only a portion (about one-sixth and one-third, respectively) were directly related to performance rather than factors such as years of experience and education. Bryan, Texas raised the size of its bonus from $600 in 1977-78 to $1,000 for 1983-84. Houston raised its outstanding educational progress bonus from $800 to $1,000 for 1983-84.

A school district also needs to make the related decision of whether to provide the same amount to all teachers who merit an award or to give different size awards based on relative performance. About one third of the 50 or so examples reported by the Educational Research Service in its 1983 survey (ERS 1983, pp. 22-28) gave a fixed amount. We found no research or other evidence pertaining to the desirability of one approach vs. the other.

Districts that used a more "finely tuned" performance assessment process, such as point rating systems, tended to provide differentiated awards. Some plans had fixed award amounts for each of several award criteria, thus combining the concepts of fixed and variable awards. For example, Houston's plan (see case report) provides a fixed size bonus to all teachers in a school that has made "outstanding educational progress" and, in addition, provides a variable bonus for attendance (the size of this bonus depends on the number of absences by the individual teacher). In some plans, the size of the individual awards is not determined until the end of the school year, after the district knows how many teachers have qualified for the award.

Most districts budget a fixed maximum amount for awards. A few, however, do not. For instance, Houston budgets an amount based on the administration's *estimate* of the number of persons likely to receive each size award. If its estimate is too low, the district would need to provide the additional monies. More typically, however, districts fix the maximum amount of dollars that can be awarded. An unusal case is that of Round Valley (California), which puts into its budget the maximum size award for each teacher in the school district ($2,000 each in 1983-84).

What Proportion of a Teacher's Compensation Should Be Linked to Performance?

In essentially all the incentive plans we examined, only a small proportion of a teacher's salary is actually determined by the plan. (Note that dismissal decisions, which of course involve a teacher's entire salary, are not a major element of incentive plans.) Even the largest awards are at most 25 percent of salary, and award levels of 5 percent of salary or less are more common. As discussed earlier, no plans using bonuses and few of the salary increase plans affect the basic salary; they usually only add to it.

The largest potential salary swings we found were contained in the new merit salary plan for King William (Virginia). It could permit significant salary reductions (up to about $6,000) if a teacher does not maintain the performance levels that enabled the teacher to gain that additional salary. (However, as noted earlier, such increments are also affected by experience and education, as well as performance ratings).

Even in districts with comprehensive merit pay plans, teacher compensation can be changed for factors other than performance, for instance longevity, education, and across-the-board (cost-of-living) increases.

The continued protection of a large proportion of a teacher's compensation from performance considerations is likely to dilute the motivational effects of monetary incentive plans. However, there is lttle direct evidence on this issue. Thus, the inclusion of other factors in determining compensation, such as across-the-board increases (along with performance-based increments), is likely to reduce the opposition towards these plans by teachers' associations and by those teachers who do not feel that they would be likely to receive merit pay.

Those districts that believe in the principle that teacher compensation should be based primarily on performance may want to apply more radical compensation procedures such as larger merit pay amounts and inclusion of a provision for reducing pay if performance is not up to par in a year, but such steps will very likely also lead to substantial opposition.

Should Merit Increases Be in Addition to Across-the Board, Cost-of-Living Raises?

We are not aware of any plan that does not have provision for across-the-board increases in the basic salary schedule to adjust for such factors as cost-of-living increases or to remain competitive in the market for teachers. A provision for such increases is likely to reduce the opposition by teachers and their associations.

An important concern here is that the salary levels for the school district remain competitive with those of nearby school districts, taking into account the merit pay plan. Teaching and administrative personnel in both Ladue (Missouri) and Summit (New Jersey) expressed concern about the presence of such disparities.

How Long Should the Performance Period Be?

In all the cases that we examined, the awards are made at the end of the school year and cover the entire school year. We found no instances where the performance periods were individual semesters.

According to motivational theory, the more quickly the reward follows the period of meritorious performance, the greater the motivational effect. The longer the lag between the time of performance and the reward, the less the motivational effect. In government agencies other than education, shorter time periods--such as three or six months--have occasionally been used. For example, a pilot incentive program for state employment service offices in Kansas and New Jersey used a six-month performance period, with bonuses coming shortly after the end of those six-month periods.

For elementary and secondary schools, however, the full school year seems to be the appropriate period. The first semester contains such distractions as the Thanksgiving, Christmas, and New Year's holiday seasons, making the first semester too short a period to reflect performance in an adequate manner. Another major disadvantage in using semesters is the added effort that would be needed to make performance evaluations each semester. Frequent interim reports and the extra paperwork they caused were one of the problems identified for the now terminated Lebanon (Connecticut) merit pay plan.

A related question for school districts is the timing of the payment relative to the end of the school year. Many school districts make their determinations as to who merits the awards and how much they will receive before the end of the school year--for instance, soon after final Spring ratings by supervisors or Spring student test scores are received. Ladue, Missouri for example, requires the determination and notification of salary changes by the third Monday in March. Thus, the performance period often does not actually encompass the entire school year. On the other hand, state laws concerning deadlines for notifying teachers about their employment status and contracts for the next year often play a major role in determining when performance evaluations are conducted and when notification is given concerning next year's salary.

As noted earlier, it is generally desirable to determine and present awards as soon as possible after the necessary information has been received. In most cases this means at least by the end of June or early July (as opposed, for example, to delaying the awards until after the start of the next school year). This will provide timely reinforcement of desired performance and will give teachers an opportunity to use the information in planning their activities for the next school year.

CHAPTER 4

Who Should Be Eligible for Awards?

This chapter discusses issues relating to what types of persons should be eligible and how many awards should be given.

Should Individual or Group Incentives (or a Combination) Be Used?

One issue for a school district is whether the incentives should focus on individual teachers or should be joint awards to groups of teachers. Most of the plans we reviewed were incentives for individual teachers, but there are a small number of group plans or at least plans with a group incentive component.

In an individual incentive plan, whether a teacher receives an award is based solely on the individual's own performance--though the award may be based on how that individual performs relative to others. In a group plan, groups of teachers (possibly including support staff) are evaluated and rewarded as a unit. Each group is evaluated as a whole, and all members share in the awards. In most cases, all members of the group receive the same award (though this usually is modified for members of the group who have served only part of the performance period).

We found no pure group incentive plans for elementary or secondary teachers, but some plans use group awards in combination with individual incentives. Houston has several separate awards. It awards up to $500 per year to individual teachers based on their own absenteeism record (see case report). However, Houston also gives $1,000 bonuses to each teacher in a school whose improvement in student test scores collectively earns the school an "outstanding educational progress" designation. Teachers receive the bonus regardless of the performance of their own classes on those test scores; however, they must individually have met certain eligibility prerequisites such as having had a satisfactory teacher evaluation (see case report). Similarly, Dallas' new plan focuses on the entire school for awards based on student test scores, but to qualify for the award, individual teachers must also meet certain teacher absenteeism and student attendance criteria. As in Houston, Dallas teachers must also have received a satisfactory performance appraisal from their supervisor to be eligible for the group award (see ERS 1983, pp. 128-131, and Dallas 1983). Seiling (Oklahoma) also uses a combination of group and individual incentives. Participating teachers receive a bonus if reading scores in their school reach the targeted increase, regardless of the scores in their own classes. In addition, teachers whose own class scores reach the target receive an additional bonus for each of their classes that reach the target (see case report). Round Valley (California) also uses both group and individual awards. Twenty-five percent of a teacher's bonus is based on the success of a cooperative project in which the teacher works with other teachers to achieve a common objective (see case report).

Even non-monetary performance-by-objectives plans can involve group incentives. Brown Deer (Wisconsin) teachers occasionally include joint objectives in which the teachers cooperate towards a given goal.

Group incentives have the attractive characteristic that they tend to encourage cooperation among teachers. Depending on the group dynamics, however, they can water down the motivational power of the incentives. An individual's own performance is only part of the total, and the individual's role will to a certain extent be hidden, or at least obscured, rather than highlighted as with individual incentives.

Group incentives can also lead to some inequities. For example, in plans such as those of Houston, Dallas, or Seiling, teachers who individually perform very well may not receive an outstanding educational progress bonus because their own schools did not meet the targeted test scores; similarly, teachers who perform without distinction on the test score criteria may nevertheless receive bonuses as long as they pass the minimum absenteeism and performance appraisal requirements. (Note, however, that by including these latter requirements, these plans ensure that teachers who do not receive the minimum acceptable performance rating or do not meet the absenteeism requirement will not receive a bonus.)

Despite these inequities, proponents of group incentives argue that over the long run, peer pressure within the group encourages poor performers to improve their performance. To some extent, the motivational power of group incentives depends on the size of the group, with very large groups tending to dissipate the motivational impact of the group incentive to a greater extent. When a district believes this danger exists (especially in large districts or schools), subgroups could be used composed of teachers physically near each other or teaching the same grade or same subject matter.

Groups can consist of teachers in the same school, same grade level, same subject matter, same floor, etc. Of the four districts we examined that had a group incentive component, three used the school as the group. Only Round Valley, California (a very small district) did not. There the groups for teacher cooperation projects were defined as groups of grades (K-3, 4-6, 7-8, and 9-12).

Individual incentives tend to put control over whether the individual receives the award in the hands of that individual; thus, individualistic persons many prefer it. Group incentive plans have the advantage that they are less threatening to individuals since the importance of the individual is diluted; not receiving an award is not as embarrassing since an individual is just one member of a group that did not receive the award. This advantage may be particularly important in those districts where the law requires identification of persons receiving awards.

We found no studies of public sector employees focusing on the question of whether group or individual incentives are preferable and under what conditions. Evidence from private sector studies indicates that individual incentives are more effective than group incentives and that small group plans are more effective than plans involving large groups. (For reviews of this past research, see Greiner et al., 1981, pp. 19-25, and Katzell et al., 1975, pp. 316-321). Of course, teaching differs in many ways from private sector white collar professions, potentially limiting the transferability of the private sector findings.

Should Participation Be Voluntary?

A school district can make participation mandatory or voluntary. Voluntary plans appear to be associated with reduced opposition to merit pay. Teachers who object in principle to a pay-for-performance system can opt out if the plan is voluntary. More importantly, a voluntary plan provides a face-saving element for teachers who feel they would not receive awards and would be embarrassed by not receiving an award, (Note that face-saving is much less important in group incentive plans where the embarrassment is already diluted.)

For some voluntary plans (such as in King William, Virginia), where participants go through a special evaluation to be considered for awards, the voluntary feature permits the teacher to avoid what may be a painful additional evaluation process. In other cases (such as Houston) the teachers, by volunteering, do not subject themselves to any additional assessment process (see case report). The criteria (e.g. test scores) are assessed for each teacher whether or not the teacher volunteers for the incentive plan. In Houston, in fact, the teacher does not have to formally request to be a participant in the incentive award program until after the test scores and information on their absenteeism are known. Thus, the voluntary aspect of Houston's plan permits face-saving.

Penn Manor, Pennsylvania, originally used a nomination approach; teachers had to be formally nominated to be considered for merit pay. Teachers could nominate themselves, and if nominated by others, they could decline to be considered further. The nomination procedure, however, developed inequities and was dropped for the second year of the plan. Participation in any given year is still voluntary. The superintendent in Lebanon, Connecticut felt that the lack of a voluntary element in Lebanon's monetary incentive system contributed to the widespread opposition to the plan and its ultimate demise. He recommends that participation in merit pay plans be voluntary (see case report).

Approximately 20 percent of 50 or so school districts whose plans are identified in the Educational Research Service's 1983 survey indicated that their plans were voluntary (ERS 1983).

The Education Commission of the States recommends that plans be voluntary for current teachers but mandatory for new teachers (1983, p.5). This approach has the advantage that it does not impose a new element on teachers already in the system but lets prospective recruits know ahead of time what the requirements will be.

Should Persons Other Than Teachers Be Included in the Incentive Plan?

Some districts include employees other than teachers in the same monetary incentive plan. For example, the plans of Penn Manor (Pennsylvania), Lebanon (Connecticut), and Tredyffrin (Pennsylvania) included such personnel as counselors, nurses, and library staff--but with a different supervisory rating form for each type of job. (Note that although neither of the latter two plans is currently in operation, their inclusion of such non-teaching school employees does not appear to have been a reason for their termination.)

We found no evidence that indicates whether such increased coverage adds to or subtracts from the effectiveness of an incentive plan. Nevertheless, the school district is faced with this choice. It can include support personnel and administrative personnel, especially if the plan uses the school as the evaluation unit in a group incentive plan. One option is to have a completely separate incentive system for support and administrative persons; this appears to be the more usual arrangement.

For non-monetary performance-by-objectives plans (discussed in Chapter 7), inclusion of a school's support personnel is quite natural since the same basic procedure can be used for assessing each person's performance and for tailoring the criteria to each person's own job. In fact, setting individual targets for support personnel may be easier than for teachers.

How Many Persons Should Be Able to Receive Awards? Should There Be Some Form of Quota?

This is a very important issue, one that has caused serious problems for many past merit pay programs in educational and non-educational settings alike.

School districts may want to constrain the number and percentage of teachers receiving merit awards for one or both of two reasons: budget limitations, or the belief that only some teachers will be sufficiently meritorious to warrant awards. If too many persons receive awards, it is a sign (some believe) that the evaluation criteria are too easy to meet. The federal government and many state and local governments have used specific quotas in their merit pay plans, for example, a maximum of 5%, 10% or 20% of their employees can be awarded extra compensation in a given year.

Though we have not found any systematic assessment of the effects of quotas, it seems clear from the available evidence on both educational and non-educational merit pay plans in the public sector that stringent quotas have an adverse and often a serious effect. Employees involved in a pilot bonus plan in the city of Milwaukee, Wisconsin objected strenuously to a 10% restriction on the number of recipients (Hatry et al., 1982). Teachers asked to provide feedback after the first years of Houston's teacher merit pay plan complained strenuously about the policy of limiting awards to 50% of the schools, thus preventing other schools that might also be meritorious from receiving outstanding educational progress awards. These quotas were subsequently dropped (schools now compete primarily against their own previous accomplishments rather than against each other--see the Houston case report).

However, one tight quota system that is reported to be popular with the staff is that of Amherst-Pelham, Massachusetts with a maximum of 12 awards for approximately 275 eligible teachers (less than 5%) (ERS 1983, pp. 40 and 86). The key here may be that teachers are nominated either by staff, parents, or students, and the assessments are not part of a formal teacher evaluation process that covers all staff.

Bryan, Texas initially had a limit of 20 percent on the proportion that could receive awards but in 1983 increased it to 35 percent. Bryan has raised its quota three times since its plan began, from 20 percent in 1977-78 to 35 percent in 1983-1984. (It also has raised the size of its bonuses twice over that time, from $600 to $1,000; see case report.)

The major problem with quotas is that teachers who perform meritoriously can be excluded from receiving awards in a given year, diluting the emphasis on merit, thus depressing morale, and encouraging backbiting and hostile attitudes towards those persons or groups who received the limited number of awards. The result can be widespread dissatisfaction and dissention. In Arlington, Virginia, quotas on the percentage of teachers rated "outstanding" in a given year caused considerable objection from teachers (even without being linked to merit pay). (Arlington teachers were especially concerned because the ratings were based on qualitative judgments "tainted" by perceptions of favoritism, etc.--Arlington Educational Association, 1983.)

One advantage of quotas is that they insure that the process will not be so corrupted that too many people receive awards. For example, in federal, state, and local governments, there has often been such a large percentage of people receiving high ratings that officials are concerned that if there were no quota, many people would receive awards who do not really merit them. Both Summit (New Jersey) and Tredyffrin (Pennsylvania) reported that one of the major reasons they dropped their merit pay plans was that ultimately almost all teachers received about the same rating and almost everyone received a merit payment--thereby distorting the concept of the program as a merit pay plan (see case reports). Thus, without a quota system, districts will need to use performance evaluation procedures that minimize the likelihood that undeserving persons receive awards.

The second reason for quota systems, especially those that involve very tight quotas (for instance, those that permit a maximum of 5-10% of the staff to receive awards), is that merit awards should be provided only to really outstanding teachers. There is probably only a small percentage of outstanding teachers in the strict sense. But there is a danger with a tight quota that the same (outstanding) teachers will receive the awards every year, further diminishing the incentive effects on others. And for plans using supervisory and peer ratings, there exists the danger of "halo" effects; teachers rated outstanding in the past will tend to get high ratings in future years, even in years when they may not be performing in an outstanding manner. On the other hand, if a district wants to use the merit system to encourage all or most teachers to improve their performance, it is likely to be necessary to open up the quota to a substantially larger proportion of the teachers so that more than just those who are perennially outstanding can receive awards.

Quotas are also used as a budget/expenditure control device. School districts face a tradeoff between the number of bonuses and their size (see Chapter 3). The dilemma is that enlarging the potential pool of awardees, while at the same time keeping the size of individual awards reasonably large, increases the funding needed for the plan. As will be discussed further in Chapter 8, the district needs to commit adequate funds for awards or the plan will be undermined.

Quotas tend to introduce competition among teachers or, if group bonuses, among schools, especially if the quotas are small. In the private sector, such competition is often looked on as being constructive and appropriate. The teaching profession is less used to such competition. Many, if not a majority, of teachers may dislike direct competition and even be upset by it, with counter-productive results. Other forms of competition with fewer interpersonal aspects may be more appropriate for teachers. Examples include having teachers compete against a pre-set target (such as a minimum test score or other objective they have set for themselves at the beginning of the year) or against their own historical levels of achievement (as in the Houston and Dallas plans).

More direct competition, however, might become acceptable to teachers if the performance criteria are perceived as being fair, if the awards are made more professional (such as with the Catalina, Arizona "menu" approach), and if enough awards are made available so that they would not be limited to only a small, select group.

CHAPTER 5

How Should Teacher Performance Be Evaluated?

Evaluating teacher performance, whether for a merit pay plan or a nonmonetary performance-by-objectives plan, is probably the key stumbling block to incentive programs. All incentive plans, one way or another, have to assess teacher performance. To have a truly effective incentive plan it is necessary that this assessment (a) be reliable and valid (i.e. evaluate well those elements that are supposed to be assessed), (b) be reasonably comprehensive (i.e. cover major aspects of a teacher's performance, even if not all aspects can be measured), and (c) be perceived by the various participants--teachers, administrators, the school board, and the community--as fair and reasonable. This is a very difficult and complex task. Probably the single most crucial decision a school district must make regarding incentive plans is how to evaluate teacher performance.

School districts have been wrestling for decades with the problem of teacher evaluation. There is considerable disagreement and controversy over various teacher evaluation methods. The problem of teacher evaluation becomes greatly magnified when the results of those evaluations are not only to be used for identifying problem teachers (as candidates for dismissal) and for helping to improve teacher performance, but also as a way to differentiate teachers as to compensation. It is clear from our own past work with non-educational state and local government agencies, as well as from the educational literature and our examinations of teacher merit pay plans, that using teacher evaluations for the purpose of determining compensation greatly magnifies participants' concerns over the evaluation process.

The importance and complexity of this topic are indicated by the length of this chapter. In this chapter we discuss the approaches to teacher performance evaluation and how teacher performance evaluation findings can then be used to determine the size of a merit award.

The selection by a school district of which particular procedures should be used to assess teacher performance is likely to be the most important decision, certainly the most technical decision, that the district makes, one that can have considerable positive, or negative, implications.

What Elements Should Be Evaluated?

It seems universally accepted that the student is the primary client of teaching and that *ideally* student learning is the central and ultimate objective of teaching, and thus learning should be measured. However, agreement and consensus stops once one proceeds from this ideal. A key problem is the presence of many external variables outside the teacher's control that can affect student learning. At the extreme, if one believes that teachers' ability to alter the amount of learning of students is negligible, then any justification for additional, performance-based, compensation becomes highly dubious, especially from the viewpoint of the community. An underlying assumption in teacher incentive systems is that teachers can indeed through their activities have a non-trivial effect on the nature, quality, and/or quantity of learning by students. As we noted in Chapter 1, this issue has been debated over the decades; it is well beyond the scope of this report to get into this debate. Rather, we accept the assumption that teachers can have a significant impact on their students.

But learning, i.e. the cognitive side of schooling, is not the only outcome for pupils in elementary and secondary education. Though much less often discussed, probably because of its vagueness, "affective" elements are also generally of concern. These are usually defined to include the attitudes and values of pupils, including self-esteem, self-reliance, ability to relate well to other students and adults (i.e. interpersonal relations), "work" habits, and such values as respect for home, law, and country. (See, for example, Johnson 1974). Different persons will give different weight to the school's role in improving affective outcomes--with some perhaps believing that affective outcomes are the responsibility of the home and not the school. We found little explicit attention to them in our examination of teacher incentive programs, and even in most of the teacher evaluation literature we examined.

There is a third major class of elements on which to evaluate teacher performance: "process" indicators. Many believe that student learning can not be validly measured, such as by test scores, or at least that test scores have substantial limitations for teacher incentive pay purposes, thereby requiring other, or supplemental, performance indicators. And others believe that in any case a teacher's task "is only to provide the best possible environment, not to guarantee that the results will be effective . . ." (Scriven in Millman, 1981, p.250). From this it follows that performance assessments need to assess the process by which teachers work with their students. This leads to performance evaluation procedures that measure the teaching process.

Teacher compensation is also often linked to such factors as advanced educational credits, having passed a teacher proficiency test, participation in extracurricular activities such as coaching and bandleading, taking part in professional work outside of regular school activities, teaching special subject matter where teachers are in scarce supply, or teaching in locations which otherwise would not attract quality teachers. Though there may be reasonable justification for providing additional pay for such activities, these generally are not considered to be performance characteristics, and we do not consider them such in this report. However, as is noted in a number of the case reports, many school districts have included some of these criteria in their incentive plans, either as an additional basis for extra compensation or as prerequisites (eligibility criteria) for individual teachers before they can receive awards for performance. Extra payments for extra responsibilities are a characteristic of master teacher and similar career ladder plans. This type of plan is quite different from the incentive plans that are the main focus of this report, as discussed in Chapter 9.

Underlying the debate over whether outcomes (whether cognitive or affective) or processes, or both, should be evaluated is the question of whether teacher awards should be based only on criteria that the teacher completely controls. In the private, business, sector many compensation plans, particularly those for managers, are related to business outcomes that are affected by many factors not completely under the managers' control (such as national economic conditions). The underlying concept is that when outcomes are good, personnel should get higher rewards than when outcomes are bad, even though external factors may have played a major role in determining the outcomes. Windfalls (and their reverse) are accepted as part of the game. (The reasons behind the outcomes can be considered when fine-tuning the amount of the awards.) School district officials and teachers using merit pay plans, particularly those whose performance is at least in part based on outcomes, should recognize that such windfalls will almost certainly have to play a part in determining rewards. (Districts, however, should to the extent possible explicitly consider such "external" factors as student characteristics when evaluating teacher performance, as will be discussed later.)

What Type of Teacher Performance Evaluation Procedures Should Be Used?

The following are the primary teacher performance evaluation procedures that are candidates for teacher incentive plans:

1. Ratings by supervisors/administration staff
2. Ratings by peers (including outside experts)
3. Ratings by students
4. Ratings by parents
5. Student achievement test score results
6. School district record data
7. Comparison of actual achievement to pre-selected targets

Exhibit 2 lists these evaluation procedures and indicates the type of element that each measures. A school district can use one or some combination of these procedures. The following sections discuss each of these, but first some overall comments.

The choice of procedure by a school district should depend on the following characteristics of these procedures:

- What the procedure measures. A district wanting to focus on student learning outcomes would focus on such procedures as examination of student test scores rather than supervisory or peer ratings; a district believing that the instructional process is the important issue would do the reverse.
- Reliability/validity of the procedures.
- Acceptability by participants, i.e. teachers and administrators.
- Cost of the procedures.

In the following sections we attempt to address these characteristics for each procedure. By and large, however, the amount of substantive evidence and empirical research on these procedures is quite limited, particularly in their use in teacher incentive plans. There has been considerable research on the relation of various teacher instruction practices to student learning. A number of school districts introducing supervisory or peer rating systems, especially those using structured classroom observations, have drawn on this work in developing their instruments. Our reading of this research, however, indicates that there are few definitive findings about the validity and reliability of these approaches or the instruments that have been used to make the assessments. (See, for example, Anderson 1982; Darling-Hammond, *et al*.

Exhibit 2

Types of Evaluation Procedures and What They Measure

	Evaluation Procedure	What Kinds of Elements Does It Measure
1.	Supervisory Ratings	Process
2.	Peer Ratings	Process
3.	Student Ratings	Process and/or Outcomes[1]
4.	Parent Ratings	Outcomes and Some Process
5.	Student Achievement Test Results	Outcomes (Cognitive Only)
6.	School District Record Data, e.g. attendance of teacher, attendance of students, acceptance at colleges, etc.	Process and/or Outcomes[2]
7.	Comparison of Actual Achievement to Pre-Selected Targets	Process and/or Outcomes[1]

---

[1] Whether process or outcome elements, or both, are measured depends on the specific questions asked of the students (#3), or on the specific objectives selected for the teachers (#7).

[2] It is not clear whether an element such as student attendance is a process or outcome characteristic.

1983; Centra and Potter 1980; ERS 1978; Lewis 1982; Millman 1981; Peterson and Kauchak 1982; and Walberg 1974.) Research on these procedures when used in the context of teacher incentive plans--whether monetary or non-monetary plans--is almost nil. Some work has been done on testing the reliability of particular data collection instruments (such as for structured classroom observations and student rating questionnaires), but much less testing (if any) has been done on testing the full set of procedures (of which the instrument is only one part) in settings involving teacher merit pay. For example, would peers alter their ratings if they know that those ratings are going to be used to help establish compensation for their fellow teachers? Will students or teachers behave differently during the testing process if test scores are used as a major determinant of teacher compensation?

Despite the many trials of teacher incentive systems that have occurred over the past decade (with a few even older), we found in our review no examples of multi-site comparative studies systematically collecting data on the impacts, validity/reliability, or costs of such plans. Some districts have attempted their own evaluations. These have generally lacked rigor, and usually have lacked adequate baseline data from which changes due to the new program might have been inferred. In the few instances of local district evaluations that we found, there has been no explicit, systematic attempt to identify other plausible explanations, i.e. confounding effects that could explain observed outcomes.

Thus the currently available empirical information, information based on actual field experiences--information critical to helping school districts learn from these experiences--is highly deficient. The key evaluation criteria these days appear to be whether a particular plan has survived and for how long and how articulate the proponents (or opponents) of the plans are. In our brief examinations of a number of district efforts, we sought evidence as to the impacts of the plan, such as on student learning, teacher retention rates, ability to hire quality teachers, teacher and student absenteeism, and changes in teacher practices that might have been associated with the plan. The information we found to be relevant is included in the following sections and in the case reports in Part II.

Supervisory Rating Procedures.

Here we consider procedures that involve a formal rating of individual teachers by supervisors, such as a principal, department head, assistant principal, assistant superintendent, or other administrative personnel.

Rating by supervisors is the traditional form of teacher evaluation. "The principal writes a short statement regarding the teacher's instructional competence and ability to work effectively with the staff. This evaluation statement is based on all interactions with the teacher during the year, including classroom observations" (Niedermeyer and Klein 1972, p.102).

The Educational Research Service reports that some form of supervisory rating was reported by almost all of the over 1,000 school districts responding to its mail survey of June 1977 (ERS 1978).

In recent years there have been attempts at more systematic classroom observations, using structured instruments describing specific behaviors and perhaps more systematic sampling procedures. Examples of such instruments are given in ERS 1978, ERS 1979, ERS 1983, and Coalition 1983. These have been used in such districts as Bryan (Texas), Catalina (Arizona), Lebanon (Connecticut), and Tredyffrin (Pennsylvania)--see case reports. In some of these cases an explicit attempt was made to develop the instrument based on past research as to which classroom characteristics were associated with improved student learning (e.g. Catalina). A major example of this approach is the new performance evaluation system being developed by the Coalition for the Development of the Florida Performance Evaluation System (1983).

Principal advantages of having supervisory/administrative personnel evaluate teachers are the following (Darling-Hammond, et al. 1983; Lewis 1982; and Peterson and Kauchak 1982; these same references are also sources for the disadvantages noted below):

- These persons have regular contact with the teachers being evaluated and, to the extent classroom observations are used, can see the teacher in action; these persons are familar with the school and community goals and values.
- By and large this is the procedure that has been used by almost every school district for a long period of time and thus in itself may do little to upset the apple cart.
- It provides an opportunity for the evaluator to provide constructive feedback to the teacher to improve the teacher's performance.
- These personnel as part of their regular jobs probably need to evaluate teachers periodically anyway.

There are, however, some substantial problems with this approach that have been widely noted:

- There is considerable question as to the validity of the components of the rating instruments as to their relation to student learning.
- There is considerable question as to the reliability of these procedures. In the instruments that we have seen the rater still has to make highly subjective judgments regarding the particular elements being rated.
- Classroom observations of teachers tend to be infrequent, perhaps 2-5 times a school year and then for not more than one hour at a time.
- Most often (but not always) classroom observations are announced ahead of time. In either case, the presence of an observer can affect the behavior of both the teacher and the class--thus throwing into question the representativeness of the observation.
- To increase the likelihood of interrater reliability on any given instrument, special training is likely to be needed periodically for those doing the ratings (Evertson and Holley in Millman, 1981).
- Where only one person, such as a teacher's supervisor, does the rating, there can be problems with perceptions by teachers of favoritism or general unfairness, and of lack of skills in doing the

evaluations. (One school professional noted to us that principals tended to be highly stressed, under-trained, and have a tendency towards favoritism.)

- The evaluations can take a considerable amount of supervisory/administrative time.

Procedures that use some form of systematic rating/observation procedure alleviate (but do not eliminate) some of the above problems. However, as noted above, the rating instruments still appear to leave much to be desired. For example, an instrument may ask the rater to rate the teacher's "skill in motivating pupil interest," but no specific guidance is provided as to how to assess this nor what specific behavior warrants what specific grade on the rating scale. This lack of specific "anchoring" of the response categories on the rating scales is typical even with newly developed instruments and has considerable potential for leading to different ratings by different persons rating the same behavior--and at different points in time. This gap also means that teachers do not know what specific practices/behaviors are needed to obtain high ratings. Nor have most of these instruments been tested as to their relation to student achievement. Where there is more than one person doing the ratings for any one teacher, or for a group of teachers who are "competing" for the same merit dollars, the lack of specificity of rating scales becomes an even greater problem, creating inter-rater reliability problems. The Florida work mentioned above for the new performance evaluation system is testing interrater reliability, but thus far this has been done primarily in "laboratory" settings using video-tape sessions rather than actual in-the-field observations.

Problems of points of view of particular evaluators can be alleviated by having more than one person rate each teacher on the assumption that overall, the average rating will tend to be more accurate. We have not found completed research that shed much light on the improvement, if any, of evaluations for incentive plans based on use of multiple raters.

There has been debate as to whether certain types of characteristics should be included on these instruments, including personality factors, physical appearance factors, extracurricular work, etc. Ladue teachers, responding to a 1983 opinion survey on its plan, indicated that characteristics relating to effective classroom teaching should receive major consideration, over such other factors (Ladue 1983, p. 29). Ladue administrators agreed that classroom teaching should receive the most emphasis.

Scriven stated that "using classroom visits by colleagues or administrators are a disgrace." The visit itself alters the teaching, especially when pre-announced; the number of visits is too small to be accurate for generalizations; there may be personal biases and prejudices, and "nothing that could be observed in a classroom can be used as a basis . . . to any conclusion about the merit of the teaching" (Scriven 1981, p. 251).

A major concern of the National Education Association is that rankings for merit pay would become a vehicle for favoritism debilitating to teacher morale (The Washington Post, December 7, 1983, p.A-6).

Popham pointed out in 1974 that use of observation systems, by focusing on process and not product criteria, means that you are assuming that the process criteria bring about desirable products (Popham 1974, p.143). He went on to say that because observational evaluation criteria usually need to be spelled out in advance, this invites teachers to alter their observed classroom behavior.

Most school districts that we examined used classroom observations that were announced ahead of time. An exception is King William (Virginia) which has one announced and one unannounced observation by the superintendent or central office staff (see case report).

Teachers from whom we received informal information point out that some teachers even though displaying what on the surface may appear to be undesirable characteristics (e.g. they may be disheveled, or not be articulate in the cultured sense) may actually perform very well and encourage student learning--at least with certain students, such as certain disadvantaged students. Teachers who may appear lazy in their instructional methods (such as by making relatively substantial use of films) may actually be quite effective in helping students. The point being made is that different types of teachers may be better with different types of students, and it is dangerous to become too dogmatic about certain classroom characteristics, especially those involving physical appearances and personality. Several reviews of studies have reported that teacher classroom behavior is a poor predictor of student learning (Millman 1981, p.156).

Darling-Hammond, et al. (1983) in their review of research findings on the relation of teacher characteristics and teacher behavior versus student outcomes and student learning indicate generally inconsistent and often contradictory findings in the "process-product" research. They found that even broader patterns of teacher practices appear not to be uniformly applicable to different grade levels, subject areas, and teacher situations or types of students. (For example, such characteristics as teacher "indirectness" that uses more open-ended teaching to explore ideas may be effective teacher behavior for some types of students with certain SES and psychological characteristics, but the effectiveness might vary for students of different grade levels and subject areas). They indicate that generalized rules for teacher behavior may not be reliable in complex and variable education environments.

Given that ratings are to be done, however, teachers appear to prefer a rating from a supervisor or from the administration, such as their principal.

The American School Board Journal's survey of teachers in May 1983 found that 39 percent wanted their principal to be the evaluator, 25 percent preferred their peers, with 27 percent preferring other administrative personnel such as department heads or curriculum specialists (Rist 1983). This preference for principals was expressed more by teachers of lower grades, possibly because the elementary schools tend to be smaller with more personal contacts with the principal or because of differences in organization.

Glass believes that past failures in such ratings are primarily because of vague, general definitions of behaviors that are to be rated and the lack of rater training (Glass 1974). He believes that these can be rectified. (However, he prefers an outside observer to somebody from the school administration, and he made these points in the early 1970's. It does not appear from our observation that the problems he noted then have been corrected to any significant extent.)

Rating teachers is likely to be one of the hardest things principals and administrators do. It is also one of the most unpleasant chores, especially for rating "problem" teachers. Few administrators have had adequate training in handling critical employee appraisals. Such reviews if not handled properly can be counterproductive.

Perhaps as a result of this, raters often tend to rate personnel highly, thereby avoiding debate with, and hostility from, the persons being appraised. Because supervisory ratings are generally based heavily on judgment, even if systematic classroom observation procedures are used, the ratings can be difficult to support unless the supervisor has carefully documented teacher problems throughout the year, a task which itself can be quite time consuming.

Some of these rating steps are probably necessary in a school district even if pay is not being linked to the ratings, but the link to pay exacerbates this problem considerably.

Many, if not most supervisors, we suspect, would much prefer for monetary incentive plans evaluation procedures that provide more objective, supportable information that reduces the need for adversarial debates (Barrington, Illinois School District, 1969).

What does all this mean? The use of supervisory ratings is the most popular form of teacher evaluation. Our limited review indicates it is also the most popular form of assessment for performance evaluations used in incentive plans. But there are also indications of major problems among teachers with such ratings for monetary incentive plans. Criticisms of the subjectivity of such ratings were major reasons for dissatisfaction among teachers in both Lebanon (Connecticut) and Tredyffrin (Pennsylvania)--both of which plans were dropped. These problems may be particularly present when other problems exist such as lack of substantial teacher participation in developing and implementing the plan. The validity and reliability of the supervisory ratings approach is in considerable question.

The fact, however, that supervisory ratings are common for teacher evaluation purposes indicates that the majority of school districts probably are likely to be predisposed to using this procedure. Such school districts should seek instruments and observation procedures that have at least some research basis for their components. The district will need to adequately train the raters in the procedures so that different raters (e.g. different principals) within, and across, schools in the district will tend to give similar ratings for similar performance. We believe that researchers and school districts need to put more effort into developing specific anchored definitions for each characteristic being rated and for each grade on the rating scale, both to improve the reliability of the ratings and to let teachers know more specifically than currently is the case what specific performance is necessary to achieve high ratings.

Ratings By Peers.

Peer ratings are used here to refer to ratings of one teacher by other teachers or by outsiders, even those outside the school district, that are not supervisors or administrators in the school district.

There appears to have been little research on peer ratings and a paucity of information on the state of peer evaluation (see, for example, McGreal, 1983, p. 126). The chapter on peer review in the 1981 Millman Handbook is on college teaching, not elementary and secondary (see French-Lasovik in Millman, 1981).

The primary advantages of peer evalutions are:

- Peers, especially if from inside the school and district, are presumably familiar with the teacher and the locality.
- Peers are likely to encourage professionalism in the ratings (and thus may also be less threatening).
- If peers are from the teacher's subject area, they may be able to give highly specific suggestions for improvement.

Using peer rating as part of monetary incentive plans, however, can also present major problems and concerns among teachers, especially between those rated and those doing the ratings. (For example, in Ladue, the high school faculty has been consistently opposed to peer evaluation.) Problems include the following:

- Teachers may see such ratings as a popularity contest based on friendship or general popularity or other irrevelant factors, thus causing morale problems and mistrust among co-workers.
- Reliability problems may be particularly bad, unless anchored instruments and substantial training is provided to raters. Peer rating systems will normally involve multiple raters (more than usually used for supervisory rating procedures).
- The raters will need substantial training, especially if special instruments are to be used. As indicated in the discussion of supervisory ratings, to obtain adequate comparability among raters a structured instrument will likely be needed.

- The validity and reliability problems discussed under supervisory ratings also apply to peer ratings.
- The district will need to provide for the time of the peers in being trained, making ratings, and probably discussing ratings with those rated. This could be a considerable time requirement.

McGreal (1983), in pointing out problems such as these, comes to the conclusion that peer ratings are undesirable and unrealistic for teacher evaluation. Note that he is addressing the issue of evaluation only, not performance assessment for incentive pay purposes which is likely to considerably worsen any tensions involved.

The Educational Research Service in its June 1977 survey found that only 33 of slightly over 1,000 reporting school systems (3 percent) reported the use of fellow teachers for the formal evaluation of individual teacher performance (ERS 1978). We found its use, and a partial one at that, in only one plan that we examined (King William); it is discussed below.

Darling-Hammond _et al_. in their review of past research reported mixed reviews for peer ratings. They point out that peers are in a position to assess competence, but use of peers is not generally recommended for personnel decisions (presumably including compensation decisions) because of "divergence of criteria" (1983, p.307).

Peterson and Kauchak (1982) are more sanguine about peer review for teacher evaluation, believing that it brings the expertise and experience of the teaching profession in as does no other assessment technique. However, in their own review of research on it, they also reported it as "one of the more undeveloped and under-researched areas of teacher evaluation." They also emphasized the problems of lack of reliable procedures, credibility to outside audiences, and the need for extensive teacher preparation for peer evaluation. But they feel that the advantages of peers in the same subject area giving highly specific feedback are substantial. They believe that some of the methodological problems can be solved with increased attention to the standardization of these procedures and that its credibilitiy should be established by the use of other forms of corroborating data such as student reports. They suggest that to implement peer review, it will be necessary for administrators to review power relationships that currently exist in schools. We note that they are speaking of peer review in the context of annual teacher evaluation, not necessarily for the additional purpose of using those evaluations for compensation decisions. We suspect they would be less sanguine if peer review is used for this additional purpose.

A variation is to use combinations of teachers and supervisors/administrators. This is recommended in the Governor's "Pocket Guide" (October 1983), which suggests mixed teams of evaluators including teachers because "good teachers recognize good teaching." It also recommends that several visits be made by the evaluators throughout the year.

King William (Virginia) in its new program uses three evaluators, two of which are central office staff members. The third is someone outside the school district chosen in part by the teacher from a superintendent's list of approved evaluators. University professors have been chosen most frequently by teachers as their third evaluator (King William case report).

From a technical viewpoint, peer ratings have many of the characteristics discussed in the supervisory ratings. The problems of instrument validity, inter-rater reliability (discussed above), and the focus on process rather than product thereby assuming that the characteristics assessed are strongly and positively correlated with outcomes, are also inherent with the use of peer ratings.

Those districts that choose to use peers for ratings will have to decide how many peers there will be, how they will be chosen, from what pool of persons, how frequently the reviews should be done, specifically how they should be done, especially to what extent they should be based on classroom observations versus by casual informal contacts throughout the year. We found little empirical evidence on these questions. In addition, there are few experiences as already noted and most of these are in systems using peers for teacher evaluations only, rather than for evaluations related to compensation.

Student Ratings.

Student ratings involve handing out questionnaires to each student in a class (near the end of the school year), collecting them in a way to assure anonymity, and tabulating the responses.

The principal advantages of student ratings are:

- They provide information from the perspective of the primary clients of teachers, a perspective not obtainable by other procedures. Their perspective is based on daily observations of the teacher for extended periods of time.
- They can obtain information on a wide variety of teacher performance, both outcome and process-related aspects. On outcomes, they can provide information relating both to teacher helpfulness in learning and on affective aspects. Information on affective aspects cannot be obtained by most other teacher evaluation procedures. Process subjects that can be sought include such information as the degree of rapport, motivation and communication engendered in the classroom.
- The feedback from students, particularly on classroom characteristics, can give teachers specific information, helping them improve their own future performance.

The primary disadvantages of student ratings are:

- There are questions as to how meaningful such ratings are (but note that the research cited later indicates high reliability and correlation with such procedures as supervisor ratings).
- Teachers may feel uncomfortable with the concept of student ratings. Ladue (Missouri) teachers responding to a survey to evaluate its merit pay plan indicated opposition to any use of student ratings (Ladue case report). (Participation by teachers in development of the questionnaire may be a way to reduce their apprehensions.)
- Students may use the opportunity to reward or punish teachers they like (don't like), especially when they become aware that the results will be used to affect teacher pay.

There has been a considerable amount of research on student ratings but mostly for higher education. There has been a small amount of empirical work done on student ratings for teacher evaluation in elementary and secondary schools.

Most of the research, both on elementary and secondary and college levels, indicates that student reports can be reasonably reliable (Aleamoni 1981; Cohen 1981; Darling-Hammond 1983; McGreal 1983; and Peterson and Kauchak 1982).

Peterson and Kauchak (1982) found in their review of past research that ratings from older pupils were quite reliable and that even teacher ratings by younger students, down to Grades 2-3, are valid. (They primarily reference the work of R. Haak, D. Kleiber, and R. Peck, "Student Evaluation of Teacher Instrument II," Austin, Texas: R&D Center for Teacher Education, 1982.) Shaw (1973) also reports the use of student ratings for Grades 2-12 by Kalamazoo, Michigan (Shaw, 1973).

The research findings indicate that students rate teachers fairly without being affected by background factors or by the grades given to them. Again, however, we note that these studies are not done in the context of the use of the information for teacher compensation purposes. Aleamoni (1981) in his review of a number of college level uses of student ratings reported that most studies found little or no relationship between the ratings of the students and the grades and marks received by the students. Cohen (1981, p. 305) in his analysis of 41 studies, also at the college level, found that "students do a pretty good job of distinguishing among teachers on the basis of how much they have learned." In both San Mateo and Los Altos (California), students themselves analyzed relationships between the ratings and characteristics of teachers and of students doing the ratings. They found that the following characteristics were not correlated: teacher sex, academic degrees, years of experience, or grade point average of the students doing the ratings (Shaw 1973).

School district use of student ratings to evaluate teachers is small. The Educational Research Service's June 1977 survey found only 19 school systems of over 1,000 (2 percent) reporting their use in formal teacher evaluations. We have found no district using student ratings as part of its incentive plan. It is not clear whether even those that report using student ratings for teacher evaluations actually use them on a regular basis and for all grades and all classes.

In an early effort, DePaul University developed an instrument for students in Grades 9-12 to rate teacher effectiveness. It made a number of tests of the validity of the instrument assessing correlations with teacher assessments, and principal ratings of teachers. Correlations of over .80 were found for the 400 teachers covered in this study (Shaw 1973 and Blanchard 1967).

The American Association of School Administrators' 1981 survey found that where student evaluations are made, they usually are only for the use of the teacher. Only rarely do student evaluations become part of the evaluation record (Lewis 1981, p. 35). Clearly the use of survey instruments with feedback provided only to the teacher will be much less threatening to teachers. However, if used for compensation decisions, student reports will be more threatening.

Professionals (such as Aleamoni 1981) urge that student rating forms be carefully constructed with the aid of professionals to increase reliability. Others such as McGreal (1983) warn against certain questions that are directly critical. He prefers wording such as "I get help when I need it," and "I feel my ideas are important--strongly agree, agree, disagree, strongly disagree"--

to direct questions such as "Does the teacher know the subject matter" and "Is the teacher interesting."

The administration of questionnaires needs to be done in a way that assures anonymity for the individual respondents. If the questionnaire is given out towards the end of the year, especially after grades are given out, pupils are likely to be less concerned about the possibility of information getting back to the teacher and affecting their grades. In any case, reporting only group data is the proper professional practice. Individual questionnaires need not be signed and should not be directly handled by the teacher being rated.

In summary, if the ratings are obtained near the end of the school year, student ratings can provide a client perspective on outcomes and process factors--a perspective not otherwise available. And they require a minimum of resources.

The key question is whether students are able to provide valid and important ratings of their teachers and whether they will do so, particularly in the context of knowing that the information will be used for helping determine teacher compensation. For the purposes of teacher evaluation, the evidence appears to indicate that students are surprisingly objective in their ratings. The approach used in Seiling (Oklahoma) with student test scores is of relevance here also. Based on interviews with students, in which a few suggested that some students control their answers to the test scores in order to reward or penalize certain teachers, Seiling altered its procedure to disregard the lowest ten percent of the scores in any given year (see case report). The same approach could be used for student ratings.

Parent Evaluations.

Parents also have a unique perspective and are also a client, although an indirect one, of school districts. Parents can be mailed or given a questionnaire to evaluate the development of their children in particular grades and subject matter. As with student ratings, parents can be queried about their perceptions of their children's learning progress and affective development. The parent can also report on some classroom process elements, such as homework, discipline, and parent-teacher communications.

The primary advantages of parent ratings are:

- They offer a unique perspective on their children's development, providing outcome information on both cognitive and affective development, as well as some (but limited) classroom process information.
- They are fairly easy and inexpensive to obtain (at least once the questionnaire has been developed).

The primary disadvantages are:

- Parents have a relatively limited perspective on a particular teacher's performance (particularly in upper grades) and may not be able to sort out other factors affecting their children's development.
- Response rates to the survey may be low, causing questions as to the representativeness of the repsonses.
- Teachers may feel uncomfortable with such ratings.

The principal issue is whether parents can validly rate important aspects of teacher performance. The research literature is quite sparse on parent ratings. Most of the reviews of teacher evaluation procedures do not consider parent evaluations. (See, for example, Darling-Hammond et al. 1983; Lewis 1982; and Peterson and Kauchak, 1982.)

The ERS June 1977 survey found that only 6 of over 1,000 school districts responding (less than 1 percent) reported use of feedback from parents as part of their formal evaluation of individual teacher performance. Only one of the school districts we examined is using parent evaluation (see Evanston, Illinois, case report), and it was not using the feedback as a formal part of its process of evaluating teacher performance for its merit pay plan.

McGreal (1983) briefly looked at parent evaluations for teacher evaluation systems. He suggests that it is logical and fair to include parents as part of an overall appraisal system. McGreal, however (citing P. Abramson, "Ednews," Scholastic-Teacher's Edition, February 10, 1976), notes the example of the Berkeley, California School District. The school district found that the parent's feedback "offers nothing that wasn't already known and it appeared that the most significant benefit of the program was its public relations value." McGreal points out that parents may be in a special position to help assess pupil achievements on affective elements and cognitive elements as well as classroom characteristcs.

In an informal interview we held with an elementary school psychologist, she indicated that parents might be asked such questions as "As you think about Jimmy's behavior last September as compared to now, has he become: More sure of himself? More sensitive to his acquaintances? More considerate? More motivated to learn? Etc." She felt that better teachers would show up better than poorer teachers on such questions, based on the aggregate of all the responses received from parents. As with student ratings, parent ratings on any particular teacher would be obtained from a substantial number of parents so that the aggregate rating would not be influenced unduly by a few extreme ratings.

Parent ratings (as with student ratings) can be obtained inexpensively. They require little teacher or supervisory/administrative staff time other than to administer the questionnaire once (or twice) during the year and to tabulate the results.

Parents may have a somewhat limited perspective on teacher performance, particularly in upper grades when their children are taught by several teachers. In addition, the teachers themselves may not perceive such feedback as being very useful. Unfortunately, as noted earlier, there has not been much experimentation or research with this approach or with particular parent questionnaires. We found no tests of the use of parent ratings as part of a teacher incentive plan.

To illustrate the procedure, however, we draw from the experience of Evanston (Illinois) (see Evanston case report). Evanston distributes the questionnaires to parents through the homeroom teacher at the spring conference with parents. The parent is handed a questionnaire at the end of the conference and asked to fill it out before leaving (and leave it in a special depository) or to fill it out at home and return it to the school. A central office mails out questionnaires not distributed to the parents. The principal of the school is responsible for reviewing and tabulating the questionnaires and preparing a report of the school results. The questionnaire includes about 50 data elements which take about 10-15 minutes time for a parent to complete. The questionnaire asks the parent to rate the quality of teaching in each of fourteen subject areas (such as mathematics, science, social studies, art, physical education, French, etc.). The questionnaire also includes specific questions about parents' perception of homework assignments, discipline, and communication between the parent and teachers (it also includes a series of questions that assess the principal and the school as a whole).

In summary, the use of parent feedback for assessing teacher performance probably warrants more attention than it has been receiving. It, however, is not likely to be adequate as the sole way to evaluate teacher performance, but it may add a desirable and relevant extra perspective. More experimentation and systematic testing is needed.

Student Achievement Test Scores.

The use of student test scores is a heatedly debated issue in teacher evaluation and will also be for use in teacher incentive plans. It seems to be widely accepted that it would be highly desirable to measure student learning if the amount of learning attributable to other, non-teacher, effects could be separated out. Since this is very difficult if not impossible to do, use of student test scores as a primary way to assess teacher performance for incentive plans will remain controversial.

Test scores, where used, are potentially the major way to measure the cognitive outcomes of teaching. They do not attempt to assess affective outcomes. To some extent, student learning can also be assessed by ratings by students and parents (as already discussed), but such ratings are considerably more subjective and not likely to be as valid for determining the amount of progress in learning as is an objective testing program.

As stated by McGreal (1983, p. 129), the assessment of student achievement is very logical but has major practical and political implications. The use of student testing assumes that an important function of teaching is to enhance student learning (Millman 1981 and McGreal 1983) and that teaching can do so. Evaluation systems based upon results say in effect "since we cannot prove that any one method, style or process of teaching is superior, all that we can do is go by results" (Feldvebel 1980, p. 18).

The student achievement test score issue is quite complex, but is one that school districts should face up to when formulating a teacher incentive program.

The primary advantages of using student test scores are:

- It is the most objective and valid way to assess the amount of student learning for subject matter covered by the tests.
- Similarly, it does not require the use of subjective judgments by supervisors or peers.
- The information can be used to indicate to schools and their teachers particular shortcomings in their students' learning (i.e. particular subject matter content that did not measure up well for particular groups of students).

The primary disadvantages are:

- Learning is affected by many other factors in addition to teaching. Thus, unless these other factors can be explicitly considered, the results may not adequately reflect teacher performance. Some research has even indicated that these other factors have greater influence than does the teacher (see, for example, Peterson and Kauchak 1982, and McGreal 1983).
- The subject coverage of the available tests often is limited and usually does not match a school district's curriculum; thus test results may not fully reflect teacher performance.
- Teachers are likely to teach to the test, and because the test subject matter is not a good match to the curriculum, may distort teaching emphasis and also may discourage creative teaching.
- It can require considerable testing effort and resources--though schools already often undertake considerable testing. The use of test scores for monetary incentive plans is likely to require more testing and more security controls on the process.

A major issue in the use of student test scores to assess teacher performance is what to do about the many other external factors that affect student achievement on test scores. Such factors include: social and economic characteristics (SES) of the students and their families, student motivation, parents' motivation and expectations, classroom size, and the physical setting of the school room (see for example: Millman 1981 and McGreal 1983).

The concern is that teachers will be rated negatively (or positively) because they happen to have a mix of pupils that is less able (or more able) to score well on the tests. Those school districts that are stable in terms of the characteristics of its pupils and whose pupils are farily homogeneous may find this issue of only secondary concern (as it has been to Seiling, Oklahoma--see case report). In most locations, however, it will likely be an important concern. Houston (see case report) and Atlanta (White et al. 1974) have used statistical regression analysis to determine expected scores for groups of students based on the particular characteristics of those students, using such variables as the percent of students that are in the school lunch program and student scores at the beginning of the year. Other variables such as class pupil/teacher ratios could also be used in the analysis to develop an expected score for an individual class considering these characteristics. Use of regression analysis depends on the school district having enough past data so there are sufficient data points to develop the equation to make the estimates. A drawback to this regression analysis approach, as Houston found out, is that is is difficult for teachers (and others) to understand. Houston has altered its procedure to a less complicated analysis of test scores--but in the process gave up adjusting the target test scores for these variables.

There are two basic choices that a school district wanting to use test scores as part of the teacher incentive plan needs to make:

1. Which test to use, and
2. What particular form of the test scores should be used to assess teacher performance, such as gain scores or absolute scores, comparison against national norms, comparison with other classes in the school district, and comparisons with past scores by the school.

It is beyond the scope of this report to delve into the many complexities in these questions. However, we will briefly discuss a few aspects to illustrate the issues involved.

The choice of tests is a key issue. Almost all schools already annually administer standardized tests at least for some grades and for some subject matter. Probably the most frequent objection we found to the use of standardized test scores, both in the research literature and in the school districts we examined, was the concern by teachers and administrators that these tests do not adequately measure the content that the teachers are teaching, i.e., the subject matter as defined by the school district itself. Singer, et al. (1983), Millman (1981), and Glass (1974) all point to the desirability of a better match of test content to district curriculum. Personnel in both of the districts we examined that used test scores as the major teacher performance evaluation technique (Houston, Texas, and Seiling, Oklahoma) expressed major concerns on the test content.

A key prerequisite, therefore, for proper use of student testing in incentive plans appears to be to obtain tests that are compatible with school district curriculum objectives. This means that national standardized tests are not likely to be adequate, at least as they are presently constituted. Both Houston and Seiling are attempting to develop more curriculum related tests. This also means that districts will need tests for each grade level and each subject. Fortunately, better matching of tests to local curriculum already may be a trend in the United States.

This problem, however, poses immediate problems for school districts wanting to move quickly into a teacher incentive system using student achievement tests. At least initially these districts will have to rely on less than desired test coverage as is being done in Houston, Seiling, and in Dallas' new plan. This also suggests that districts may be less able to depend on commercially available, standardized achievement tests and even statewide assessment tests that may not adequately measure teacher instructional objectives in one's own school district (Millman, 1983). In any case, most such tests cover only some skills and not always all needed grade levels.

Using locally developed tests has the major advantage that it avoids the common criticism that teachers will teach to the tests if their evaluations and compensation depend on the test results (see, for example, Glass 1974). If the test content and classroom curriculum match reasonably well, the school districts would then want the teacher to "teach to the test."

Local test development does not, however, get around two other concerns sometimes raised: (1) that students will intentionally affect their test scores to reward or punish their teachers (if they know their teacher is being evaluated or paid based on those test scores), and (2) that the teachers themselves may become motivated to improve their evaluations and compensation by various undesirable devices such as not encouraging students' full effort in the fall baseline test and placing emphasis on the spring "post" test--or actually giving inappropriate help to students in the spring testing. A few Seiling (Oklahoma) students in a survey conducted by the district after the third year of the plan suggested that some students might be controlling their answers to punish teachers. To reduce the effects of such a possibility, the district now disregards the lowest 10 percent of the scores on a test (see case report).

Darling-Hammond et al. (1983) report another problem with test content. They report that some past research indicates that teacher behavior that is needed to increase achievement on standardized tests is quite dissimilar to the behavior that seems needed to increase complex forms of learning, including problem solving ability and creativity. Similarly, Centra and Potter (1980, p. 285) indicate that when the measure of student achievement is a multiple choice, fact-oriented test, it is not possible to assess higher-order types of learning. No conclusions regarding the effectiveness on teacher questioning at various levels should be drawn from such studies. These findings seem particularly significant for the selection of the type of tests that should be used; it indicates that tests are needed that cover both kinds of learning/teaching. If the tests do not cover higher-order learning by students, they may discourage teachers from trying to develop such thinking and reasoning and from trying to achieve desirable affective development such as independence, curiosity, and positive attitude toward self (Darling-Hammond _et al_., 1983, pp. 280-296).

The second basic technical question with the use of test scores is what form of the score should be used.

Teachers' performance could be evaluated in any one or more of the following ways:

- On the gain in a class' scores (e.g. average score) from the test results at the beginning of the school year to the end.
- On the difference between the scores of the teacher's classes and those of similar classes (at the same grade level and subject matter) in the school district.
- By comparing the class' score to a statistically developed "expected" score (as discussed earlier).
- By comparing the actual achievement (either a gain score or the spring score level itself) against some non-statistically developed target for the class.

In addition to the use of a class' overall average score, a district can also use performance indicators expressed in the form: percentage of a class that achieves a certain score. This latter option will possibly be of particular interest to schools with students that have troubles reaching minimum proficiency levels.

Gain scores can be calculated by comparing test scores at the beginning of the school year to the end of the school year such as in Seiling (Oklahoma)--see case report--or from one year to the next such as in Houston and Dallas. The former procedure requires testing studies both at the beginning and at the end of the school year. (Fall-spring testing has the advantage that the class composition should be about the same, thus avoiding the possible confounding effects of comparing a somewhat altered mix of students because of changes over the summer.)

The cost of student testing can become substantial, especially to develop new tests that better match the school district's curriculum than do currently existing off-the-shelf tests. However, much of the testing may be needed for other purposes as well so that such testing is not necessarily solely for the incentive plan. There will be costs for purchasing of materials, possibly special proctoring of the tests, and scoring and analysis of test results on a teacher-by-teacher basis (or, for group incentive plans such as Houston and Dallas, on a school-by-school basis). A problem also arises as to the frequency with which tests of a certain grade and subject would need to be changed so that teachers would not become familiar with the test questions and be tempted to provide coaching in advance to their classes. Neither of the school districts we examined that were using test scores as a major part of their teacher performance evaluations felt this was currently a problem but felt that it could possibly become one.

Could classroom grades be used to evaluate teachers for incentive plans? Teachers evaluation researchers appear to seldom raise this option. Millman, (1981, p.161) summarizes the argument against their use: differences among teachers and their grading practices mean that classroom grade scores would not likely be reliable. Since their use would mean that the persons being evaluated would generate their own evaluation records, their use would not likely have much credibility among outsiders (e.g. the public) or even among teachers themselves.

Glass (1974) discusses an earlier suggestion by Popham, McNeil, and Millman to test teachers by having teachers teach a particular topic to an unfamiliar, randomly assigned group of pupils for perhaps 30-60 minutes--with only a few hours or a day's notice and then to measure pupil test scores. This conceptually would provide a rigorous evaluation of the teacher's performance. However, this approach has major problems. It would test only certain types of instructional ability and not longer term teaching ability. It would also penalize teachers who need time to prepare and deliver subject matter. It also would require considerable preparation and administration time to be able to cover all teachers in all fields. (Popham later, 1974, recommended against the wide use of this approach.)

To summarize, the use of test scores has considerable appeal, especially if (a) tests can be developed that are compatible with school district curriculum objectives and (b) if some consideration can be designed into the procedures to consider and adjust for possible differences in student composition from one class or one school to another (e.g. so that teachers of classes with more "difficult" pupils will not be penalized)--such as by using statistical analysis to adjust for differences.

Test score results have the great virtues of being objective and directly facing up to the chief objective of schools--student learning. They appear to have a higher face validity than do ratings by supervisors or peers (the research on supervisory and peer ratings raises too many questions about the adequacy of these ratings as a proxy for student learning/achievement).

The approach does require substantial care and cost in developing appropriate tests and administering, monitoring, and analyzing them. Opponents to their use are concerned about the lack of correlation between teacher effort and student learning, pointing to the research that indicates other family and motivational factors have considerably greater influence on student learning than does the teacher. However, if teachers do not have an appreciable effect on learning, then pay-for-performance plans may not make much sense anyway. If they can have some tangible effect, as most districts will undoubtedly agree, then school districts need to decide whether the district's philosophy is to reward teachers merely for good effort (trying hard) or whether to focus on results, even if the results are not always due to the teachers themselves.

Use of School District Record Data.

Some school record data can be used to assess aspects of teacher performance that school districts may wish to include in performance evaluations for teacher incentive plans. Prime examples are teacher and student attendance. Houston, for example, requires that teachers have no more than five absences in order to be eligible for any of its several bonus awards (see case report). In addition, one of its bonus awards is for teachers that have fewer absences than this target. Dallas' new plan considers both teacher and student absences (Dallas 1983).

Teacher attendance may not be a problem in many school districts, but where it is (and leads to substantial added costs for substitute teachers or disruption), it could be factored into the incentive plans.

The relation of teacher behavior to student attendance is not clear but student attendance (or rather unexcused student absences) can be considered as an indicator of student attitude and thus possibly is affected by that teacher. As with test scores, however, consideration of class "difficulty" is desirable to provide fair teacher evaluations. Teachers with students whose background characteristics are more liable to absenteeism should have lower attendance targets.

Houston points out that it had an absenteeism problem; having a specific bonus related to absenteeism helped it meet an explicit district objective. In other school districts where teacher or student absenteeism is not a problem, these may not need to be included in the incentive plan.

Other record data elements that can be used are external awards for students and college acceptances. This information will, however, be of limited use for assessing individual teachers but would be more useful for evaluating individual schools as part of a group incentive plan. It has another major drawback; this information will likely reflect the backgrounds and inherent abilities of the students more than teacher capabilities. But, nevertheless, teachers probably have some influence over these and trends over time could be indicative of teacher performance.

The primary advantages of school record data are:

- It is objective, and probably accurate, information.
- Since it is already available, it would likely cost little to use for incentive plans.

Its primary disadvantage is:

- It is available only for a few elements relevant for teacher performance assessments and these elements are insufficient by themselves to provide adequate teacher assessments.

We found no research information on the use of this type of teacher evaluation. The information from Houston, the one merit plan we examined with experience on rewards directly related to record data, indicated that the plan had succeeded in obtaining significant reductions in teacher absenteeism. However, whether this reduction has affected student learning or to what extent it has reduced the school district's cost is not known.

Comparison of Actual Performance to Targeted Performance.

A number of school systems have procedures for establishing objectives for individual teachers at the beginning of the school year with some type of examination of accomplishments against these objectives at the end of the school year. Accomplishment of pre-set objectives can be used as a major teacher evaluation approach. In Chapter 7 we discuss this type of plan as an option for a non-monetary incentive program. In this section, we focus on it as an option for monetary incentive plans.

In a teacher merit pay plan, individual teachers (or groups of teachers for a group plan) at the beginning of the school year would each establish with their supervisor a set of performance targets for the school year. At the end of the year, the actual results would be compared to the targets. Those achieving or exceeding their objectives would be eligible for merit pay. This type of "performance-by-objectives" (or "Management-By-Objectives") approach is not by itself a complete measurement procedure. The specific data collection procedures that would be required to determine the extent to which the targets have been met will depend on the objectives. One or more of the previous performance evaluation procedures would be needed to measure progress towards the specified objectives (e.g. if an objective is to have students reach certain proficiency levels, then testing would be needed).

The primary advantages of an actual vs. target achievement approach are:

- Teachers have an important role in establishing, with their supervisor, their objectives for the school year; thus, this is a highly participative procedure with an extra opportunity to motivate participating teachers.
- The procedure is relatively simple and straightforward in concept.
- Since targets can be tailored for each teacher, the procedures provide the opportunity to adjust for individual differences in classroom composition, student difficulty, and other special circumstances, e.g. a teacher with a class having low past test scores could set a lower class test-score target than a teacher with a class that had higher test scores.

The primary disadvantages are:

- The targets set by different teachers are likely to vary considerably as to importance to the district and difficulty, thus causing problems in the comparability of awards between teachers.
- Teachers and school administrators need training in the identification of appropriate targets. The process is not a familiar one for teaching staff and not as easy to carry out successfully as may appear at first. There is a tendency for targets to become relatively insignificant and easily achieved.
- The targets teachers can set are limited by the capability of the district to measure accurately the degree of target achievement. This procedure is not likely to reduce measurement problems if meaningful objectives/targets are set by teachers.

A more thorough discussion of the advantages and problems with target-setting procedures--for non-monetary plans--is presented in Chapter 7. Most of those points are also applicable to monetary plans.

Three of the school districts we examined that had monetary incentive plans also had some form of objective-setting, Round Valley (California), Evanston (Illinois), and Lebanon (Connecticut). The latter incentive plan has been discontinued. Round Valley's principals consider achievement of the teacher's objective along with classroom observations to determine the point score for 35 percent of the teacher's overall merit pay rating. Evanston principals also consider achievement of objectives along with classroom observations to determine each teacher's overall performance level. In Evanston, teachers must have one student-progress objective of perhaps two to three targets. The district feels that having more targets will lead to dilution of the teacher's efforts and perhaps overwhelm them. Lebanon teachers were required to select one result objective (on student progress) and one process objective. Teaches had to submit reports on their progress towards their objectives five times during the year. (The district reported that the paperwork associated with the various reports became a significant burden, probably contributing to the plan's ultimate demise.) In none of these cases, however, was the targeting process the central part of the evaluation.

The data available on these plans do not indicate how successful these aspects of their plans have been. Nor did we find any past research or experimentation on the use of targeting for teacher monetary incentive plans. (As Chapter 7 indicates, there is almost no systematically collected evidence on their use in non-monetary educational system plans either.)

A number of school districts are using some form of teacher objective-setting in part because of State laws (e.g. in California and New Jersey). Thus far, however, we suspect most of the school districts have not introduced full-fledged target-setting procedures with specific measurable objectives--see Chapter 7.

A way to overcome one of the major problems with this procedure, that of having comparable targets across teachers, is suggested by Round Valley's plan. Round Valley uses a procedure on other parts of its merit pay plan that might well be adapted to the use of performance targets: Have a central comprised of administrators and, possibly, teachers assess the individual targets at the beginning of the school year as to their difficulty and importance to the school district and decide on the maximum number of "points" that each target warranted. Preferably, also, at that time specify how many points would be awarded for different levels of achievement for each target. (Round Valley set maximum points for two components of its plan: special teaching initiative projects and teacher cooperation projects--see case report.)

In summary, this procedure is quite attractive in permitting teachers to set their own target objectives (with supervisory approval), thus giving teachers a substantial role in the procedure. There are a number of problems, however, especially the difficulties teachers have setting meaningful targets and the problem of different teachers setting targets of differing importance and difficulty. These problems need to be overcome for the procedure to be useful, otherwise there will be complaints from teachers not receiving merit awards who believe that other teachers set easier and less important targets. There has been little experience with this type of procedure. More testing and experimentation seems needed before the approach should be widely used.

The Use of a Combination of Teacher Performance Evaluation Procedures.

A major option school districts should consider is the use of a combination of these approaches. In effect, many of the incentive plans we examined did use combinations. Houston, which focuses primarily on test scores, also uses attendance records, and to determine eligibility for the bonuses, uses subjective supervisory evaluation ratings. Bryan (Texas), though emphasizing supervisory classroom observations, also encourages principals to use other information that is available, such as teacher absenteeism data and informal feedback from parents and students. Evanston (Illinois) uses supervisory classroom observations, performance against targets, and (informally) parent ratings. Plans that involve comparison of performance targets against actual achievements, such as those of Evanston and Round Valley (California), generally will need to use a variety of procedures (such as test scores, record data, and supervisory evaluations)--depending on the particular objectives targeted by the teachers. Supervisory ratings, especially if based on some systematic procedure for classroom observations, have the advantage of permitting the district to encourage specific teacher improvements in classroom practices, which is much less possible if the district focuses solely on student test scores. On the other hand, if the procedures focus solely on supervisory (or peer) ratings, this loses any direct focus on student outcomes.

Thus, the performance evaluation procedures for merit pay plans could well use a combination of these measurement approaches, such as test scores to determine student learning results, perhaps student (and even parent) ratings to provide a client-oriented perspective, and supervisory ratings to identify more detailed ways to improve teacher performance.

A final comment: teachers should know as early as possible, by the beginning of the school year if not sooner, what specifically they will be rewarded for--so they can develop their plans to meet those requirements. The motivational value of an incentive plan will diminish to the extent teachers do not know clearly what the requirements for merit awards are and have enough time to adjust their actions and behaviors to meet those requirements.

How Should Teacher Evaluations Be Linked to Specific Award Amounts?

Once a school district has decided on which specific procedures it will use to evaluate teacher performance each year, there is another crucial choice to be made. How should the ratings or scores be used to determine who will be given awards and what size each award should be? Even the best performance evaluation can come to nought if this linkage is poorly handled.

The major concerns here are that:

- The relationship between the teacher performance evaluation measurements (whether student test scores, supervisory ratings, etc.) and the awards be clear and understandable to participating teachers and administrators--so they know what performance is needed to receive what rewards;
- This linkage process not introduce a major new element of subjectivity; and
- The linkage is perceived as fair by the participants.

The Urban Institute found this step to cause major problems in local government managerial incentive plans (Hatry *et al*. 1981). Some plans, even though having specific manager evaluation procedures, used a highly subjective and the problem of different teachers setting targets of differing importance and difficulty. These problems need to be overcome for the procedure to be useful, otherwise there will be complaints from teachers not receiving merit awards who believe that other teachers set easier and less important targets. There has been little experience with this type of procedure. More testing and experimentation seems needed before the approach should be widely used.

The Use of a Combination of Teacher Performance Evaluation Procedures.

A major option school districts should consider is the use of a combination of these approaches. In effect, many of the incentive plans we examined did use combinations. Houston, which focuses primarily on test scores, also uses attendance records, and to determine eligibility for the bonuses, uses subjective supervisory evaluation ratings. Bryan (Texas), though emphasizing supervisory classroom observations, also encourages principals to use other information that is available, such as teacher absenteeism data and informal feedback from parents and students. Evanston (Illinois) uses supervisory classroom observations, performance against targets, and (informally) parent ratings. Plans that involve comparison of performance targets against actual achievements, such as those of Evanston and Round Valley (California), generally will need to use a variety of procedures (such as test scores, record data, and supervisory evaluations)--depending on the particular objectives targeted by the teachers. Supervisory ratings, especially if based on some systematic procedure for classroom observations, have the advantage of permitting the district to encourage specific teacher improvements in classroom practices, which is much less possible if the district focuses solely on student test scores. On the other hand, if the procedures focus solely on supervisory (or peer) ratings, this loses any direct focus on student outcomes.

and vague procedure for determining the specific merit increases, causing confusion over what performance was needed to receive what merit pay.

A school district can use a pre-specified procedure that specifies ahead of time what amount of merit pay will be given for what specific performance. Both Houston's and Seiling's (Oklahoma) plans do this with their detailed specification of who gets what for what performance (see case reports). Note that these are also the two plans with a major focus on test scores.

Plans with a quota system (such as Bryan, Texas--see case report) or with a budget limit on the total dollars that can be distributed (such as Penn Manor, Pennsylvania--see case report) do not guarantee that a certain level of performance during the year will yield a specific size award. This is probably a handicap for incentive plans by not allowing teachers to be assured they will receive an award of a certain size or even any award, for specific achievements.

Some jurisdictions have numerical point systems often associated with supervisory rating systems. Teacher evaluators determine the number of points the teacher receives on each of a number of characteristics. The range of possible points is pre-determined. These points usually reflect the relative weights (i.e. importance) for each characteristic. For example Ladue (Missouri) grades each teacher from 0-15. Each point is currently worth $300. Round Valley (California) also has a point system with the number of points received by a particular teacher automatically determining the amount of award the teacher receives. (Currently each point is worth $280, with a maximum of ten points divided among three criteria--see Round Valley case report.) Tredyffrin's (Pennsylvania) supervisory evaluation system awarded from 0-12 points on each of a number of characteristics. At the end of the school year, the total number of points received by all teachers was added up and divided into the total amount allocated by the school district to determine the dollar value of each point (see case report).

Complete pre-specification of what level of performance will receive what level of award has many advantages. This, however, will not likely be every school district's preference. Districts, however, should attempt to be as clear as possible on the linkage between performance levels and awards to maximize the motivational value of the awards.

CHAPTER 6

Other Incentive Plan Design Issues

In this chapter we address the following issues:

- To what extent can and should the teacher evaluation procedure also be used to identify ways to improve performance?
- To what extent should information on who receives awards be promulgated?
- To what extent should teachers and their associations participate in the design and implementation of the plan?
- How much advance planning and preparation time is needed?
- Should there be an appeal process?

To What Extent Can and Should the Teacher Evaluation Procedure Also Be Used to Identify Ways to Improve Teacher Performance?

Ideally, the procedures used to evaluate teacher performance for the purposes of determining compensation would be equally useful for giving guidance to teachers as to ways to improve their future performance. Unfortunately, it is likely to be difficult to achieve both of these purposes with the same procedures.

Some teacher evaluation experts believe there is a direct conflict between evaluations to determine teacher status questions such as compensation ("summative" evaluation) and evaluations to help identify what needs to be done to improve performance ("formative" evaluation). For example, Darling-Hammond *et al*. (1983) identified the following conflicts between these types of evaluations: information affecting job status, such as pay, will generate anxieties among teachers and make them less amenable to constructive discussion about their performance; the need for objective information for determining special compensation--information that is externally defensible--may require one type of data (such as test scores) whereas procedures aimed at guiding performance improvement need evaluative information that is "rich, descriptive, and illuminates sources of difficulty as well as viable courses for change" (p. 303). ERS (1978) points out that there can be a problem between the two roles of administrators: that of making judgments (e.g. as to merit pay) and that of counseling (helping teachers improve their future performance).

On the other hand, Scriven (in Millman, 1981) argues that "valid summative type evaluation is the essential basis for recommending and detecting improvement" (p.267). He points out that summative information can provide clues as to problems needing attention even if such information is not as rich as that provided by other types of procedures.

A school district's desires regarding these two roles can directly and greatly affect the choice of teacher performance evaluation procedures.

Of the procedures discussed in Chapter 5, supervisory and peer rating procedures are most directly relevant to the role of assisting teachers to improve their performance. The key question regarding these procedures is whether the elements examined for the ratings are sufficiently valid to lead to the impacts the school district wants. There are the dangers noted in Chapter 5. For example, in our informal discussions with teaching personnel, they frequently pointed to situations where a teacher who might not have had characteristics usually associated with desirable teaching nevertheless was quite effective in encouraging student learning, at least for certain types of pupils. Nevertheless, most administrators and teachers believe that they can usually identify good and poor teaching practices and thus can improve teacher behavior in the classroom even if it does not clearly lead to improved student learning.

Student test scores are generally perceived as not providing information to help improve performance. It seems clear that procedures that use only gross student test scores will be the least useful approach for helping teachers improve their performance (see Singer et al., 1983). However, as indicated earlier by Scriven, even test scores can--and probably should--be used to provide clues to learning problem areas. This will depend on examining the test scores systematically to identify problem areas for the teachers. This should become considerably more useful as more testing is adapted to the local curriculum. The need here is to identify the subject matter for test questions on which certain students had particular problems, and to convey that information to their teachers as guidance as to where improvement is needed in future classes. This process probably requires doing more analysis of test results for individual teachers than school districts are accustomed to doing. Even in the school districts currently using test scores for their incentive plans, we did not find this type of feedback being provided to teachers in a detailed, organized manner. We note that such analysis seems considerably more practical for even small school districts with the advent of microcomputers.

As discussed in Chapter 5, student and parent ratings, if used as part of the district's incentive plan, can be used to assess both "results" and "process." These procedures appear to have been used by schools in the past mostly as feedback to individual teachers to encourage the teacher to identify where improvements are needed. Rarely have they been used for evaluating teachers. For incentive plans, the key factor is the choice of the particular topics to be included in the questionnaire. For these questionnaires, the inclusion of both outcome-oriented questions and specific process questions, as is often done, can provide both evaluative data and feedback helpful to teachers. For student and parent questionnaires, strengthening of questions pertaining to student improvement seems most needed so that the district is better able to assesss changes both in learning and in affective elements of student achievement such as self-respect and ability to get along with others.

The inclusion of some form of constructive feedback to teachers as part of the merit plan process is often advocated (e.g. ERS, 1979, and Congressional Task Force on Merit Pay, 1983). The current Florida Teacher Evaluation project is developing two teacher assessment instruments, one for formative purposes and one for summative (Coalition for the Development of the Florida Performance Evaluation System, 1983). McGreal (1983) points out that teacher evaluations should help improve teacher performance as well as provide a basis for rewarding superior performance.

On occasion, the teacher evaluation process, with its improvement-oriented components, has been kept completely separate from merit pay or performance-by-objectives plans. (This has occurred frequently in other state and local government, non-educational agencies where the annual employee performance appraisal process has until recent years been usually treated as a separate, independent effort--see Greiner et al., 1981.) This practice has the danger of providing conflicting messages to employees. Most teacher monetary incentive plans we examined either make the teacher evaluation a central part of the plan or at least require that the teacher evaluations be adequate to serve as a basis for merit pay (see, for example, the Houston case report).

Most school districts that use supervisory or peer ratings require conferences between evaluators and teachers shortly after classroom observations. (Teacher self-evaluations are sometimes also required, but this is not a topic that seems relevant to an examination of incentive plans.)

Overall, it seems desirable for a school district using an incentive plan to have procedures that combine both purposes, providing some substantial clues to teachers for improvement as well as information for evaluating the gross student test scores will be the least useful approach for helping teachers improve their performance (see Singer et al., 1983). However, as indicated earlier by Scriven, even test scores can--and probably should--be used to provide clues to learning problem areas. This will depend on examining the test scores systematically to identify problem areas for the teachers. This should become considerably more useful as more testing is adapted to the local curriculum. The need here is to identify the subject matter for test questions on which certain students had particular problems, and to convey that information to their teachers as guidance as to where improvement is needed in future classes. This process probably requires doing more analysis of test results for individual teachers than school districts are accustomed to doing. Even in the school districts currently using test scores for their incentive plans, we did not find this type of feedback being provided to teachers in a detailed, organized manner. We note that such analysis seems considerably more practical for even small school districts with the advent of microcomputers.

As discussed in Chapter 5, student and parent ratings, if used as part of the district's incentive plan, can be used to assess both "results" and "process." These procedures appear to have been used by schools in the past mostly as feedback to individual teachers to encourage the teacher to identify where improvements are needed. Rarely have they been used for evaluating teachers. For incentive plans, the key factor is the choice of the particular topics to be included in the questionnaire. For these questionnaires, the inclusion of both outcome-oriented questions and specific process questions, as is often done, can provide both evaluative data and feedback helpful to teachers. For student and parent questionnaires, strengthening of questions pertaining to student improvement seems most needed so that the district is teachers' performance. The main problem here is that mixing the two purposes can require considerable extra paperwork. But one way or another, the teacher evaluation process should be compatible with the incentive plan.

To What Extent Should Information on Who Receives Rewards Be Promulgated?

Official, public recognition of employees who have performed particularly well in a given year is common in some parts of the private sector and to some extent in the public sector. Such recognition itself is believed by some to be a motivator. Often, however, plans involving such widespread public recognition are limited to a small number of employees. In the teaching profession this could be a teacher-of-the-year award for a school district or state.

However, the promulgation of the names of teachers who have won merit awards appears to have had more negative consequences than positive ones, at least in the cases we examined. There are two major concerns. First, parents may want to move their children into classes taught by teachers who have received merit pay, and similarly they may be unhappy at having their children in classes taught by teachers who have not received the awards. This could, for example, require school districts to devise a procedure for assigning students to teachers in some way that parents perceive as being equitable (Congressional Research Service, 1983). The CRS report also indicated that the problem might not be as great at the secondary level as for elementary schools because at the high school level, students may spend only one period per day with a particular teacher.

The second major concern is that those teachers who do not receive an award may suffer from poor morale and loss of self esteem and prestige. This is of particular importance, since most teachers are quite dedicated to their profession of helping their students. (We have already noted this concern in discussing group incentives and making plans voluntary. Both of these approaches would reduce the embarrassment to individual teachers not receiving awards.)

Lebanon (Connecticut) did not promulgate names, but information on them leaked out despite a formal agreement with the Teacher's Association on confidentiality. A list came out in a matter of days after the awards were made, apparently from unhappy teachers (see Lebanon case report). This caused major problems with both parents and teachers. This problem led in part to the considerable opposition that developed toward the plan and its eventual termination. Round Valley (California) has a strict confidentiality policy to avoid the tensions caused by teacher jealousy, bitterness, and humiliation (see Round Valley case report and Burke, 1982). Catalina Foothills (Arizona) had mixed feelings on this; some teachers in one of its surveys felt that recipients should be publicized while others felt this would damage the morale of nonrecipients. Low visibility has, however, been Catalina's preference (see Catalina case report and Frase, 1982). Penn Manor (Pennsylvania) made public the names of award recipients. Some teachers objected, and the publicity reportedly hurt some teachers in the eyes of family and community. School administrators, however, feel that identification is inevitable and have not changed their practice of releasing the names. (The number of awards each year is small, about 25 or 11 percent of all teachers--see Penn Manor case report.) A Los Angeles Times article on the San Marino (California) merit pay plan reported that although teachers voted the plan out after 25 years, the administrators attributed part of the plan's long duration to their ability to keep confidential the award recipients (see also Savage, 1983). Ladue's (Missouri) policy is to keep the information confidential. It feels that salary information should be treated the same as compensation for Ladue's doctors, lawyers, and corporate executives. School officials do not provide information about specific salaries, although they must report them to the state (see Ladue case report and Miami Herald, August 8, 1983). Bryan (Texas) provides its bonuses quietly and without publicity, but teachers can go to the principal and see the list of bonus winners (see case report).

Thus, low visibility is usually the preferred approach. Avoiding morale problems of non-recipients is the primary factor. (As discussed earlier, this concern and that of encouraging constructive cooperation is also a reason for the attractiveness to some school districts of making plans voluntary and using group, as well as individual, incentives.)

To What Extent Should Teachers and Teacher Associations Participate in the Design and Implementation of the Plan?

School districts, anxious to move quickly into incentive plans, tend to reduce the amount of participation by teachers and their association. However, a common theme in incentive plan problems has often been the lack of participation by those affected by the plan. This was a major finding of the Urban Institute's earlier work on incentive plans for managerial and non-managerial employees in a variety of state and local government non-educational agencies (Hatry et al., 1982 and Greiner et al., 1981). The Governor of Tennessee had severe problems in getting legislation for his plan passed, partly due to lack of participation by the teachers in formulating the plan. The Congressional Task Force on Merit Pay (1983) recommended that educational agencies involve teachers and administrators as well as the community in establishing the evaluation criteria and benefits for a merit pay plan so that teachers as well as school administrators and the board of education become firmly committed. McGreal (1983) emphasized the importance of a feeling of ownership by teachers if they are to be willing to change and improve instruction (p.13). Though his comments were directed at teacher evaluation procedures, they also are relevant to incentive plans. The Governor's "Pocket Guide" (1983) says that teachers and their organizations "must be consulted and involved in developing the program but opposition from teacher unions can make this difficult" (p.6). The Superintendent of Lebanon, Connecticut reported that lack of participation by teachers and their association in the development of Lebanon's merit pay plan severely handicapped its acceptance (the plan was dropped after three years--see Lebanon case report).

Teacher participation is probably particularly important for developing the teacher performance evaluation procedures. For example, Shaw (1973) suggests that participation of the teachers in the development of the questionnaire is one of the best ways to reduce the concerns of teachers about student ratings. Most of the jurisdictions with which we spoke emphasized the use of teacher inputs in the development of the teacher evaluation process and in reviews of the incentive plan after it had been implemented. In many school districts, participation is required by the legal agreement with the teachers' association.

Participation in the overall design of the plan appears much less commonplace. Superintendents and their staffs, sometimes with outside advisors such as from universities, have usually developed the overall design.

After introduction of the plan, many of the school districts we examined used some form of feedback from teachers to review the plan and develop modifications. For example, Catalina surveyed a portion of its teachers after the first year. Other school districts have used teacher councils to obtain feedback, such as Seiling, Oklahoma, which has a teacher advisory council that periodically suggests modifications to the plan. Ladue, Missouri has teachers on its standing "Committee on Evaluation" that continually reviews the plan and recommends changes.

Proposals by the Governors of North Carolina and Arizona are more far-reaching; they would require approval of a plan by a majority of teachers in a school district (Public Administration Times, September 1, 1983). This type of proposal, however, would probably meet with opposition from many of the school district administrators with whom we spoke who believe that while participation is highly desirable, the final responsibility and decision should be that of the administration and school board.

Our examination of experiences in both educational and non-educational settings indicates that the more the participation, the longer it takes to develop and implement a plan. However, these same experiences also indicate that agencies that have rushed into such plans, without adequate participation, will likely face major negative consequences later.

How Much Advance Planning and Preparation Time Is Needed to Prepare a Plan?

In the previous section, we noted that there often are problems when an agency attempts to rush into an incentive plan (see, for example, Hatry *et al.*, 1982). Ladue administrators warn against moving too quickly to force merit pay on teachers without listening to their concerns and addressing their needs (see Ladue case report). Other administrators also warn that rushing will diminish chances of success (Cramer, 1983). Kalamazoo's plan was introduced in a few months, apparently too quickly (Doremus, 1982). The Lebanon (Connecticut) superintendent indicated that the district had a major problem trying to develop a plan to start in September after gaining approval for it only in April.

In addition to needing time to obtain teacher participation (and if possible, their support), time is needed to develop an adequate teacher performance evaluation process. A key factor is whether the district already has procedures that both the administration and teachers are comfortable with and are sufficiently valid to use as a basis for determining who should receive merit pay and how much. Catalina Foothills (Arizona) was fortunate in having a teacher evaluation instrument already under development that was introduced at the same time as the merit pay plan. The instrument had been developed jointly by teachers, administrators, and the state university. Other school districts will not be so fortunate and will likely need to develop such procedures. The State of Florida is taking many months to develop and test appropriate teacher assessment instruments.

School districts that focus on student test scores are likely to have an even greater problem unless, like Dallas and Houston, they already have an extensive data bank and testing capability that permitted them to quickly develop an adequate student test score process. However, as noted in Chapter 5, a major problem in the use of student achievement tests is that of finding tests whose content is reasonably compatible with that of the school district's curriculum and whose variety is adequate to cover various grade levels and subject matter. As indicated in Chapter 5, jurisdictions such as Seiling, Oklahoma and Houston are attempting to develop new tests covering more subjects and that are more compatible with the school's own curriculum. These tasks can take many years. An option that these districts took, however, is to begin with nationally available tests, recognizing that these are not completely satisfactory for the long run. This latter strategy may be particularly appropriate for school districts that are especially concerned over the low performance of their students on tests and have as a major district objective the improvement of proficiency levels on such national or state tests.

Non-monetary performance-by-objectives (PBO) plans face fewer problems, but adequate preparation time is needed to gain an understanding by participants of how to select objectives and targets and to establish procedures for evaluating progress towards the targets. These tasks are often assumed to be easy and to take little time. In general, this is not so. For meaningful objectives on topics such as student progress, considerable time and effort may be needed to establish reliable measurement procedures. Hyde Park (New York) took five months to pilot test its PBO program with approximately 25 percent of its teachers. Santa Clara (California) used a one-year period for developing its PBO programs.

To summarize, there are two major activities for which adequate time needs to be scheduled in developing teacher incentive plans: (1) time to develop the appropriate teacher evaluation procedures and (2) time to gain adequate teacher participation. School districts, it seems clear, should not rush into these plans without providing adequate time for, and attention to, both activities.

Should There Be an Appeal Process?

The majority of the districts that we examined had a formal appeal process; a few did not. The primary advantage of an appeal process is that teachers who feel that they have been evaluated unfairly have the opportunity to air their concerns. The appeal process provides a safety valve for teachers to vent their concerns while affording them the opportunity to correct situations that may not have been handled adequately by the plan's procedures. For the most part, the school districts with which we spoke reported few appeals and fewer reversals of initial decisions. To some extent, this low level of reversals was due to the participation of high-level administrators, such as superintendents, in the original award determinations (particularly in the smaller school districts) so that an appeal goes to a person involved in the earlier decision.

Although we found no direct empirical evidence on the value of appeal processes, they are widely used and appear desirable.

What Preconditions Are Needed For Success?

Two related concerns appear most important here. The first is an adequate teacher-administrator relationship, and the second the existence of an acceptable basic salary structure.

The presence in a district of mutual trust between administrative personnel and teachers is likely to greatly ease the problems in implementing an effective monetary incentive plan. The level of trust is likely to be affected by the type of teacher performance evaluation procedures used. If the procedures are based on supervisory ratings, any pre-existing suspicion and mistrust is likely to be exacerbated by a monetary incentive system linked to the teacher evaluation process. In such cases, the use of a more objective approach, such as evaluation procedures based on student achievement test scores and other objective data, is likely to be more palatable to mistrusting teachers. The reverse may be the case where there is a high level of trust; teachers may be more inclined to accept a supervisory rating procedure than test scores over which both parties have less direct control. Ladue, Missouri personnel have reported that "success or failure of a salary schedule based on the effectiveness of teaching is dependent largely on the degree to which there is mutual respect, understanding, and sympathetic professional relationships between evaluators and teachers ("The Ladue Evaluation Salary Program," October 1980, p.15--see Ladue case report).

A second potential prerequisite is a reasonably satisfactory basic pay plan. Some teachers and administrators currently believe that merit pay will not be successful until the teachers' present salaries reach an "adequate" level. It is clear from the current debate involving the national teachers associations that as long as they believe teacher salaries are too low across the board, they are less sympathetic to using funds for payments to only a segment of teachers. This problem is likely to increase in seriousness to the extent that the monetary incentive plan rewards only a small percentage of teachers. If, however, the plan permits a substantial proportion of teachers to receive awards, if those awards are of a substantial amount, and if the teachers perceive that a primary problem is the willingness of the community to pay across-the-board increases, then the monetary incentive plans may be accepted as a partial substitute.

Our sample is too small to make any definitive generalization regarding the importance of these two prerequisites, but they clearly are important considerations.

CHAPTER 7

Performance-by-Objectives Plans for Teachers

A potentially promising approach for stimulating greater productivity and higher levels of employee performance is the regular specification of performance targets. This process involves the formal identification of specific work objectives and targets for individual employees at the beginning of a given period and the subsequent comparison of actual to targeted performance at the end of that period.[1] A performance targeting program can be used as a means for evaluating employee performance or as a motivational tool in its own right.

Chapter 5 discussed procedures used in monetary incentive plans. In this chapter, we consider non-monetary plans--though much of what is discussed here also applies to monetary versions.

Unlike merit pay procedures, the motivational effectiveness of performance targeting plans does not depend on the provision of monetary awards. Instead, such plans are based on the psychological theory of goal-setting.[2] Goal-setting theory postulates that human actions are triggered by conscious intentions that are expressed as specific goals. A goal is what an individual (or a group) is consciously trying to achieve and constitutes the most immediate determinant of performance. According to this theory, increased effort and better performance could be realized by providing teachers with clearer targets or by making their targets harder to achieve (more challenging).

---

1. We will use the terms "goals" and "objectives" interchangeably in this chapter.

2. See, for instance, Schwab and Cummings (1970), Latham and Yukl (1975), and Locke *et al*. (1970).

Target-setting procedures for teachers generally involve the following major steps:

1. At the beginning of the performance period (usually a semester or school year), individual teachers meet with their supervisors to agree on objectives for the coming months.
2. Each objective is supposed to incorporate a specific target to be achieved, criteria and data collection procedures for assessing target achievement, a work plan for achieving the target, and an indication of the responsibilities of the supervisor (or administration) in the target achievement effort.
3. During the performance period, teachers receive periodic feedback on their progress toward achieving the specified targets.
4. At the end of the performance period, the teacher and supervisor meet once again to review the degree to which each target was actually achieved. This provides an opportunity to identify needed improvements and to begin to specify objectives and targets for the next performance period.

The application of target-setting procedures to managers is generally termed "management by objectives" (MBO). The use of target-setting procedures for annual performance assessments of management and non-management personnel is frequently referred to as "appraisal by objectives" (ABO).

The focus of this chapter is on the use of target-setting procedures for motivating teaching personnel, that is, for stimulating improved performance from teaching staff. We will use the term "performance by objectives" (PBO) to refer to the target-setting procedures reviewed here.

The performance contracts for teachers popular in the 1950's (ERS, 1974) represent an early application of target-setting procedures to the motivation of teachers. Such programs determined a teacher's pay, in part, by the degree to which the teacher was able to improve student achievement levels (as measured by standardized test scores) in areas such as mathematics and reading. "Improvements" were measured against pre-specified targets. Such programs were tried by school districts in Keokuk, Iowa; Menominee, Michigan; and Cherry Creek, Colorado, among others.

PBO has been widely discussed as an approach for evaluating teacher performance. For example, Manatt et al. (1976) and Redfern (1980) have both described teacher evaluation procedures based on PBO.

There are a number of important advantages to the use of PBO for motivating teachers:

- The procedure is relatively simple and straightforward in concept.
- It is a highly participatory process giving teachers a major role in determining how their performance will be assessed--an element highly conducive to motivating people, especially professionals such as teachers.
- It provides, in principle, a relatively objective basis for assessing teacher performance.
- PBO offers a way to motivate employees without the use of monetary incentives. This can mean lower costs and avoidance of the emotional responses often associated with linking pay to performance.
- Since objectives and targets can be tailored for each teacher, the procedure provides an opportunity to adjust for individual differences in class composition, subject difficulty, etc.

Disadvantages of these programs include the following:

- Differences in target-setting practices among teachers can make it difficult to compare teachers or schools (e.g. targets may differ among teachers as to their importance to the school district and ease of achievement).
- The program may require considerable paperwork and supervisory time (an especially difficult problem for PBO programs involving teachers, where the span of control is unusually large).
- It potentially requires that all staff learn a new and difficult skill - that of identifying and formulating realistic, challenging, and measurable job objectives and targets.
- It may require extensive training of all staff.
- The program can degenerate over a period of time if not coupled with periodic retraining, revision, rejuvenation, and--perhaps--rewards.

In this chapter we focus on four types of issues associated with PBO: design issues, implementation issues, operation and maintenance issues, and issues associated with the impacts and effectiveness of such plans. The findings reported here have been drawn from the experiences of five school districts currently using PBO, as well as the literature concerning the use of PBO approaches for teachers and other public and private sector employees. (The five districts are the Brown Deer (Wisconsin) School District, the Hyde Park (New York) Central School District, the Ridgewood (New Jersey) School District, the Salt Lake City (Utah) School District, and the Santa Clara (California) Unified School District.)

Design Issues

There has been considerable research by the private sector and the academic community on the best way to design a performance targeting system. Their findings suggest that the following features enhance the effectiveness of a PBO effort:[1]

- Performance targets should be clear, specific, challenging yet realistic, priority ranked, and--to the extent possible--quantifiable.
- Employees should participate in the formulation of their goals and performance targets.
- Overall objectives should be established at the top level of the organization and communicated to line staff.
- The performance objectives should be accompanied by written action plans indicating how the objectives will be accomplished.
- Employees should be provided with frequent, relevant, timely, and constructive (non-critical) feedback on their progress toward meeting their objectives.

Other important design issues on which the research does not provide much guidance are: (1) the importance of focusing objectives and targets on outcomes rather than processes, (2) the net additional motivational value of linking target achievement to financial rewards, and (3) the need for central coordination and oversight of employee efforts to formulate performance targets. Private sector and academic research findings on these issues tend to be either ambiguous or non-existent. There is some limited information on these concerns from a recent study of four public sector PBO programs (Hatry et al., 1982). (These programs involved several kinds of municipal employees but no teaching personnel.) It was found, for example, that:

---

[1] These results are reviewed in greater detail in Greiner et al. (1981), Chapter 8, and the references cited therein.

- There is evidence that performance targets that focus specifically and explicitly on productivity--e.g., outcome measures employing efficiency or effectiveness targets--have the greatest likelihood of fostering productivity improvements.
- Process targets of the form "identify and implement at least one project related to cost savings or service improvement over the next 12 months" have often been effective in stimulating employees to undertake special projects that improve productivity.
- PBO programs where target-setting was highly decentralized and lacking in central staff oversight tended to exhibit large variations in the quality and difficulty of the targets formulated by employees. Without such central coordination, target quality tended to decline with time.

These findings, while tentative and based on public sector PBO programs involving non-teachers, are potentially relevant to the design of PBO approaches for teaching personnel. Nevertheless, the precise extent to which findings on PBO programs for non-teaching personnel in the public and private sectors are applicable to public school teachers is not clear. While many of those findings are likely to apply, there are potentially important differences between PBO programs for teachers and other PBO programs. For example, the complexity of performance criteria associated with teaching is generally greater than for the work of private sector employees; heavier emphasis is given to process measures in assessing teaching performance; there are constraints imposed on teacher PBO plans by laws, rules, and civil service regulations; and there is a tradition of strong emphasis on seniority and training rather than merit in conjunction with teacher compensation plans. An example of a potentially important difference between teachers and other public sector employees, insofar as PBO programs are concerned, is the relatively large span of control usually associated with the supervision of teaching personnel (Gray and Burns, 1979). This means that a single school principal may have to evaluate a large number of teaching staff, a situation that can lead to ineffective evaluations and reduce the motivational effectiveness of a PBO program.

Nevertheless, the five case studies and the results we have found from research on other public sector PBO programs illuminate a number of issues regarding the design of PBO programs for teachers. The following issues appear to be especially significant.

Program Coverage.

Each of the five PBO programs initially covered all teaching personnel. However, in two cases coverage was curtailed after a few years. In Brown Deer, teachers were given the option of selecting one of several performance appraisal procedures whose emphasis on goal-setting varied considerably. In Hyde Park, the PBO program was restricted to non-tenured staff and teachers with performance problems. Such curtailments in coverage make it difficult to view these target-setting procedures as real PBO efforts at the current time. To be effective as a general motivator of teaching staff, it would appear that PBO programs should cover all (or at least most) teaching personnel.

The Structure and Source of Teacher Objectives.

All five PBO programs initially used a hierarchical objective structure, with district-level goals (specified by the board of education and/or the superintendent) at the top, "building" objectives for individual schools (formulated by the school principal) at the next level, and the objectives for individual teachers at the lowest level. Building and district objectives were expected to be integrated with and provide guidance to the formulation of objectives by teachers.

Job characteristics and behaviors included on the rating forms used to appraise teacher performance also frequently served as a source of objectives (see the Hyde Park, Ridgewood, and Brown Deer case reports), as have the minimum basic skill levels that some school systems specify for their students (Santa Clara and Salt Lake City case reports). An innovative source of teacher objectives in the Salt Lake City school district has been the "School Community Councils" associated with each of the district's schools (see the Salt Lake City case report).

The Focus of Teacher Objectives.

Few of the objectives established by teachers in the five PBO programs examined here appear to have focused on educational outcomes or efficiency. In those cases where objectives regarding student achievement were reported (see for instance the Salt Lake City, Ridgewood, and Santa Clara case reports), they often tended to be relatively general (e.g. "improve the teaching of spelling") or to focus on the basic skill objectives specified by the school board (e.g. "teach long division concepts using the approved curriculum in such a way that 90 percent of the students will pass an exam on long division"). There were, however, some exceptions. For instance, in Salt Lake City many teachers established objectives for achieving cost savings (in response to a similar district-wide objective).

Most of the performance targets reported by the five school districts focused on teaching processes, the execution of special projects, and/or professional development. All of these tend to focus on the means to an end rather than the outcomes of interest. Teacher performance appraisal procedures using target-setting straddle the line between competency-based (i.e. process-oriented) and outcome-based evaluation philosophies (Darling-Hammond _et al._, 1983). Thus, depending on how the objectives are defined, PBO procedures can focus on either outcome or process measures of performance. Unfortunately, the precise relationship between achieving a process-oriented objective and improving educational outcomes has not usually been systematically established. The same can probably be said for many performance targets focusing on personal development or the completion of special projects. Such efforts generally have tended to be largely remedial or to focus on curriculum development and other changes in the teaching _process_; their relationship to _outcomes_ remains problematic.

An especially important issue for teacher PBO programs is the degree to which a teacher's performance objectives focus on the remediation of deficiencies, as opposed to the encouragement of excellence. Many of the teacher PBO programs examined placed their greatest stress on using the targets to identify and alleviate areas of poor performance (see, for instance, the Hyde Park, Santa Clara, and Salt Lake City case reports). While such a focus was apparently effective in eliminating "problem" teachers, by itself it is likely to do little to encourage overall excellence.

Selection of Specific Performance Targets.

While goals and objectives identify the general areas of concern (e.g. student achievement, curriculum development, or an aspect of teacher behavior), it is the performance _target_ that spells out the specific action or change being sought. For instance, if the objective is to improve reading skills, the corresponding performance target might be "improve reading levels by 1.0 years over the next six months as measured by a specific standardized test."

Many of the objectives we examined did not actually specify any performance targets. Some did not even define the period to which the performance target applied, although most of the targets examined used the school year or the time until the last scheduled performance evaluation (usually in April) as the (implicit) performance period of interest.

Another issue in formulating meaningful performance targets is how to determine the specific level of performance to be sought. For instance, if the objective is an improvement in reading scores, how does one determine whether to seek an improvement of 1 or 1.5 years in such scores? A number of sources might be used to specify such targets: prior levels of achievement; historical rates of improvement; state or professional standards (especially for schools or classes that are below standard); district goals or policies; or perhaps the actual performance of other classes or schools in the district, the state, or elsewhere in the nation. As noted previously, two school districts (Salt Lake City and Santa Clara) used as performance targets the basic skill objectives that the school board had adopted for each grade.

The specification of the actual performance targets is an especially important concern for PBO programs designed to stimulate outstanding performance. If the PBO plan is to serve as a stimulus for excellence, it may be inadvisable (depending upon how target achievement is measured) to use minimum performance standards as the targets. Meeting a minimum performance standard cannot, in itself, be considered a mark of excellence. For this reason, using minimum basic skill objectives as performance targets may not be the best way to stimulate excellence. The question of just what kind and what level of performance targets do stimulate excellence in teaching is a difficult issue but one that must be resolved by any school district attempting to use PBO as a general motivational tool.

A related issue is how to adjust for differences between teachers with regard to the subject taught, student mix, etc. If such differences are not considered and information on the achievement of performance targets is used for purposes important to teachers (e.g. as a substantial part of annual performance appraisals or as a major basis for recognition and awards), then charges of inequities and unfairness are likely to occur. Some teachers will feel that other teachers have had easier or less important (substantive) targets. The five teacher PBO programs examined here used no formal, systematic approach to adjust for such differences. In some cases (e.g. Santa Clara), the issue was partly addressed by stressing to teachers the importance of tailoring their efforts to the needs and abilities of each individual student. Teachers were rated specifically on their effectiveness and conscientiousness in carrying out this requirement.

But in general, it was up to the teachers or supervisors to make any adjustments, e.g. by adjusting the actual performance targets or by subjectively allowing for such factors when evaluating target achievement. An approach sometimes used elsewhere in the public sector--central monitoring and review of all targets to control target comparability--was not used in the school districts examined here. (However, Brown Deer did strive to enhance comparability between schools by holding joint discussions of the various performance ratings with all three school principals present.)

Although the issue of target comparability has been a central concern for many PBO programs, it does not appear to have been a major issue in any of the school districts examined here. This may, of course, reflect the absence of rewards or sanctions in connection with target achievement. Concern over target comparability and inequities would probably have been more severe had any of these school districts linked target achievement to financial rewards.

Measuring Target Achievement.

Hand in hand with the problem of specifying objectives and performance targets for teachers is the issue of how to measure target achievement. One of the assumptions--and, perhaps, biases--associated with the use of PBO is the measurability of major objectives. Very few of the performance targets for teachers we reviewed actually specified the criteria and data sources to be used for measuring target achievement. Those that did usually used project products, due dates, or test scores for making such assessments. But in most cases, it was up to the teacher or the evaluator to muster whatever evidence was available to determine whether the target had been achieved.

In addition (or perhaps, as a result), in many instances target achievement was assessed only subjectively, using whatever information the supervisor and the teacher could put together. The subjectivity inherent in such an assessment process can obviate one of the important potential advantages of a PBO system--the ability to provide a relatively objective assessment of teacher performance. The failure--or inability--of many teachers to specify appropriate measures of target achievement can thus lead to a PBO plan that is just as subjective as many other supervisory rating procedures. This appears to have occurred in connection with many of the teacher PBO programs we examined.

The subjectivity noted above was often compounded by the way in which the assessments of target achievement were used in determining a teacher's overall performance. In most cases, target achievement was only one of many inputs considered in producing an essentially subjective overall performance rating. The precise manner in which target achievement results were to be incorporated into the overall performance rating was rarely spelled out. The essential subjectivity of the resulting rating, and its loose relation to target achievement, probably further diluted the motivational impact of the PBO plans.

The Mechanics of the Objective- and Target-Setting Effort.

An important issue here is the number of targets that a teacher should set. Several of the school districts examined (e.g., Santa Clara and Hyde Park) initially had teachers formulate numerous performance objectives and targets. However, none of the five programs are now using more than about six objectives per teacher, and there appears to be a general perception that the number of targets for a given teacher should be kept to between one and six.

Another question is what should be the respective roles of the teacher and the teacher's supervisor in setting the performance targets. In two of the PBO programs examined here (Santa Clara and Salt Lake City), teachers took the initiative in preparing a first draft of their performance targets for the coming year. In the remaining three cases, the performance targets were drafted jointly by the teacher and the teacher's supervisor. These procedures have the advantage of making it more likely that the teacher will accept and seriously strive to achieve the targets that are finally agreed on. A joint target-setting procedure helps ensure that both the teacher and the teacher's supervisor understand the teacher's objectives for the coming year and agree on their importance (McGreal, 1983).

On the other hand, the specification of teacher performance targets was not always entirely democratic. When teachers exhibited performance deficiencies, principals often took the initiative in specifying remedial targets. In addition district and school building objectives imposed further limits on teacher flexibility in setting performance targets. In assessing the problems they had encountered in connection with their first PBO effort, Hyde Park school administrators stressed the importance of having supervisors take some initiative in setting targets, especially in connection with targets addressing district-wide priorities (Gray and Burns, 1979). This participation by supervisors can ensure that the targets of individual teachers are of importance and are compatible with district priorities.

The Relationship Between PBO and the Teacher Evaluation Process.

The relationship between a school district's PBO program and the procedures used for annually appraising teacher performance can be quite complex. Of the five teacher PBO systems examined in the course of this study, only one (that in Salt Lake City) is currently used as the sole procedure for appraising teacher performance. Hyde Park and Brown Deer initially used their PBO procedures as the primary mechanism for appraising teaching personnel. However, both de-emphasized the role of PBO in performance appraisal after several years and began to use goal-setting merely as an adjunct to other performance appraisal techniques (see the Hyde Park and Brown Deer case reports). In the case of the other two school districts (Ridgewood and Santa Clara), PBO has always played a relatively limited role in appraising overall teacher performance.

The Brown Deer School District moved toward other performance appraisal methods in part to help alleviate a growing threat that teachers perceived in connection with the use of PBO to assess their performance. Hyde Park's de-emphasis of PBO came in the wake of its inability to maintain the effectiveness of the PBO system over a period of several years (a similar decline, also potentially traceable to inadequate maintenance of the plan, has been reported by the Santa Clara School District).

These results suggest that if PBO is being relied on for performance appraisals, inadequate maintenance of the PBO program may damage its effectiveness as a source of appraisal information, leading to pressure for de-emphasizing or dropping the program. On the other hand, subordination of

PBO procedures and results to other performance appraisal techniques may seriously dilute the objectivity and motivational effectiveness of the PBO program, as discussed before, and may prevent one from realizing the advantages of PBO as a motivational tool.

These results suggest that school administrators contemplating the use of PBO systems give careful attention to the relationship between PBO and the procedures to be used for appraising overall teacher performance. We suggest that if the PBO procedure is not made a significant part of the teacher evaluation process, it will have little meaning to teachers and little motivational value.

The Relationship Between Target Achievement, Rewards, and Penalties.

As noted previously, the question of whether or not to link target achievement to rewards and penalties has not yet been clearly resolved in the research literature. Nevertheless, a decision on this issue may be quite important to the motivational effectiveness of a PBO program.

School administrators in Hyde Park and Brown Deer both felt that the lack of tangible awards for target achievement had contributed to the decline of their PBO efforts. Indeed, the presence of some form of sanctions or awards may be necessary if teachers are to take the PBO process seriously over the long run. These need not be monetary. For instance, strong support of the PBO effort from top-level management may in effect create a psychic reward for taking the program seriously. By limiting target-setting to non-tenured teachers and teachers whose performance was poor, the Hyde Park School District in effect focused its PBO effort on those situations for which strong sanctions (the withholding of tenure, the withholding of step increases, or even termination) were available to ensure that the plan was taken seriously by those involved. Several other school districts (Salt Lake City, Santa

Clara, etc.) noted the prominent and effective role played by PBO in identifying and remediating poor performance--another case in which PBO seems to have been most effective when target achievement levels were associated with clear sanctions or rewards.

On the other hand, there appears to have been an asymmetry between the rewards for high target achievement and the penalties for not meeting one's targets in the teacher PBO programs we examined. While most school districts linked low target achievement to the initiation of remedial actions and, if necessary, dismissal, high levels of accomplishment with respect to the year's targets were rarely given much recognition beyond an occasional pat on the back and a notation in the employee's personnel folder. By failing to provide adequate recognition for outstanding target achievement while emphasizing the negative implications of not achieving targets, school districts may be failing to take full advantage of PBO as a positive motivational tool for improving employee performance.

Implementation Issues

Although the evidence is limited, it appears that the implementation of PBO programs for teachers is not greatly affected by pre-conditions such as pay levels or prior experience with target-setting. The presence of unionization and collective bargaining agreements also did not appear to have affected the feasibility of the PBO efforts in the five school districts. The absence of a direct linkage to teacher compensation is probably a major reason why these problems have not tended to arise in the PBO plans we examined.

A few implementation obstacles were reported, however. Hyde Park reported that contractual constraints on the teacher evaluation process and the large span of control characteristic of their schools made it more difficult to initiate the PBO approach and may have affected the effectiveness and staying power of the program that finally emerged (Gray and Burns, 1979). Two school districts reported special problems in getting secondary school administrators to utilize the PBO approach effectively.

Most of the five school districts made an effort to involve teaching staff in the development and/or maintenance of their programs. Moreover, the PBO procedures were usually incorporated into the provisions of the teacher contract. Thus, although the employee associations may not have had a formal role in the actual development of the PBO system, the need to obtain their contractual agreement to the provisions of the plan probably ensured that teacher association concerns with regard to the PBO effort were taken into consideration (this may, of course, have tended to dilute the plan and limit the way it was used).

Adequate training in writing goals and using the PBO process has been viewed as essential by most experts on the topic of target-setting (see, for instance, the results reported in Greiner _et al_., 1981, p. 162). Two of the five school districts reported extensive efforts to train their staff in writing goals and objectives and utilizing the target-setting system (see the Hyde Park and Santa Clara case reports). Whether that was enough is, however, uncertain, since the PBO programs in both sites apparently encountered problems in execution after a few years. School districts implementing a PBO process should provide for extensive staff training in the development of objectives and specific targets and, for supervisors, in conducting teacher evaluations based on target achievement. This training needs to be provided to all new employees. In addition, periodic refresher training is also needed.

Operation and Maintenance Issues

Two important concerns in operating PBO problems are: (1) that it may be necessary for a district to launch a major effort to collect new or additional data on teacher performance, and (2) that PBO programs can lead to considerable extra paperwork for teaching and administrative staff if efforts are not made to keep such paperwork within bounds.

The five programs we examined, however, generally required no special operational support--data processing facilities, specialized staff, etc. A potentially controversial issue associated with many target-setting efforts--the conditions under which employees are allowed to alter or adjust their performance targets during the performance period--did not appear to be a source of contention in the five school districts examined. All five permitted teachers to revise their performance targets at any time with the concurrence of their supervisor. Only targets addressing poor performance and/or a termination decision could not be modified once the performance period had begun.

The lack of controversy concerning the fairness of the targets or revision of the targets may reflect the absence of any direct linkage between target achievement and financial--or other--rewards. Such a linkage tends to focus attention upon the equitability of the targets, making adjustments of the targets to reflect changing external conditions much more urgent and controversial.

The provision of frequent, timely feedback on target achievement has been cited by many as an important factor in the effectiveness of a PBO program (see, for instance, Greiner et al., 1981, pp. 158-160). The frequency of such feedback in the five school districts we examined ranged from one or two times per year to weekly or even daily. (The instances of more frequent feedback generally involved PBO programs that focused on only a few teachers--e.g. non-tenured staff and persons needing remediation.) In several cases the feedback frequency reportedly declined over time. Most of the five PBO programs either did not specify a minimum frequency for providing feedback or required only one or two interim reports on target achievement. Given the motivational importance of regular feedback on target achievement and the wide range of feedback frequencies reported by the five sites, it appears that school districts contemplating the use of PBO as a motivational tool should probably require supervisors to provide feedback often enough to ensure that the motivational potential of the program is not compromised.

Three of the five school districts examined--Brown Deer, Hyde Park, and Santa Clara--reportedly experienced a decline in their programs after several years. Among the problems reported were a decline in the quality of the objectives specified, declining awareness and understanding of the PBO process, less conscientiousness by supervisors in observing teachers and carrying out the evaluation process, and growing employee perceptions that the PBO program constituted a threat. As noted by Santa Clara School District officials, these symptoms point to the need for periodically reviewing and re-vitalizing the PBO process if it is to survive and be effective. (In fact, it did not survive as originally designed in either Hyde Park or Brown Deer.) Such revitalization can take the form of continuing to train supervisory and non-supervisory personnel in the techniques and applications of PBO, frequent rotation of supervisory staff to bring in new perspectives for evaluating teachers, and--perhaps--the introduction of some form of recognition for outstanding target achievement.

The Effectiveness of PBO Programs for Teachers

Private sector experiences and laboratory research on the use of performance targeting programs suggest that, when properly designed and applied, performance targeting can have a positive effect on productivity (Greiner et al., 1981, pp. 148-151). There have, however, been few efforts to assess the effectiveness of performance targeting programs for public sector employees (Greiner et al., 1981, pp. 143-145) and virtually none in connection with PBO programs for teaching personnel. In one of the few recent studies of the impact of performance targeting on public sector (but non-teaching) employees (Hatry et al, 1982), it was found that:

- The target-setting process itself appeared to be responsible for a number of modest though scattered productivity improvements.
- Performance targeting efforts did not produce any significant amount of job dissatisfaction.
- The linkage of target achievement to monetary rewards did not appear to produce any improvements in performance that would not have been obtained had no such linkage been used. Indeed, the introduction of monetary awards generated considerable dissatisfaction with the entire PBO effort.
- The targets with the greatest likelihood of fostering productivity improvements were those focusing specifically and explicitly on productivity, e.g., outcome measures employing efficiency or effectiveness targets. Process-oriented targets requiring employees to regularly undertake special productivity improvement projects were also found to be relatively effective in stimulating improved performance.

Thus, the experiences of other public sector employees seem to indicate that if properly designed, PBO programs can stimulate modest improvements in performance without having to be linked to monetary rewards. Furthermore, such programs appear to have few negative effects. An especially attractive aspect of PBO is its frequent success in motivating management and professional personnel, a fact that makes its application to teaching personnel especially promising.

One must, nevertheless, be cautious in extrapolating the results from the private and public sectors to PBO programs for teachers. As noted previously, the latter programs may involve some significant differences from those for non-teaching staff--e.g., the need to deal with the large span of control and the complexity and subtlety of the outcomes associated with the teaching process. Thus, information is needed on school district experiences with PBO programs and their effectiveness for improving the performance of teaching personnel. Unfortunately, we have found no systematic evaluations of actual school district PBO experiences that shed significant light on their impacts.

Three major reasons why school districts introduce PBO programs emerge from the five programs examined: (1) increased accountability, (2) improvement of the performance appraisal process, and (3) satisfaction of state requirements for evaluating certificated personnel. It is significant that none of the PBO programs examined were specifically designed and introduced to stimulate better performance by teachers. Indeed, the inattention by these school districts to many of the design and implementation issues described above suggests that the motivational potential of such programs has generally not been tapped by the school districts. While PBO programs can potentially stimulate excellence on the part of teachers, they must be designed, implemented, and maintained with that in mind.

It is therefore perhaps not surprising that the five PBO programs we examined appeared to have had little impact, positive or negative, on teacher performance and attitudes. Only in Salt Lake City, where PBO represents the only performance appraisal procedure, did administrators credit the plan with contributing to improved academic achievements by students. However, no substantial independent evidence of this is available. When focused narrowly on non-tenured staff and teachers with performance problems (and therefore potentially facing dismissal), performance targeting efforts have been reported to be quite effective in shaping and improving teaching practices and procedures. (See also Iwanicki, 1981, p. 203.) But for the large majority of the teaching staff, no specific changes due to PBO were reported. Only one of the five districts (Salt Lake City) credited PBO with affecting teacher retention or recruitment; in that case the PBO effort was cited as facilitating the elimination of poor and unsatisfactory teachers and the retention of more effective staff.

Labor-management relations were also generally unaffected by the introduction of PBO programs for teachers. Indeed, the specifications of the plans were usually incorporated into the teachers' contract.

The PBO programs examined here appear to have had little impact, one way or the other, on teacher morale and job satisfaction. The Salt Lake City School District, which appears to emphasize PBO more than the other four school districts, reported some (minor) negative feelings towards the plan on the part of teaching staff. And teachers in Brown Deer reportedly began to view the PBO effort as somewhat threatening after several years. But for the most part, teachers appear to have accepted the PBO process. (Note that acceptance by primary school personnel was in some cases greater than that by secondary school staff.) The presence of state laws in California and New Jersey addressing the need for careful performance appraisal procedures and, to some extent, encouraging the establishment of objectives appears to have contributed to staff--and union--acceptance of the plans. The fairness of the PBO procedures has not generally been an issue in the school districts examined, possibly because of their highly limited use in the teacher evaluation process (except in Salt Lake City).

In general, the out-of-pocket costs associated with a PBO effort for teachers appear to have been relatively low, although the school districts examined have not made a detailed accounting of the expenditures associated with their programs. To the extent that PBO is used as the primary performance appraisal procedure (rather than as a separate motivational tool or as an adjunct to other performance appraisal procedures), the cost of such a program represents an expense that would probably have to be borne by the school district anyway.

Some school districts reported that their PBO programs required special expenditures for consultants, trainers, and/or extra record-keeping, but no estimates of the magnitude of these costs were available. The largest cost associated with a PBO effort is likely to be the time needed for formulating and negotiating objectives and subsequently meeting to assess target achievement. For instance, the comprehensive PBO effort employed in Salt Lake City reportedly is quite time consuming, involving the cooperation and commitment of many people.

The school districts examined noted several other advantages and disadvantages in connection with their PBO programs. For instance, one district suggested that the target-setting process contributes to improved continuity in district activities and emphases from one year to the next. On the other hand, it was suggested by others that the district and building objectives may increase conformism and reduce flexibility and initiative on the part of individual teachers.

In summary, while PBO programs for teachers can potentially stimulate improved performance (if the results for PBO programs for non-teaching staff can be extrapolated to teachers), that potential has probably not been fully exploited by the school districts examined here. While these five programs offered little evidence of significant positive (or negative) impacts on educational outcomes and teacher performance, these results should be viewed with caution. The five PBO programs were apparently not designed or used specifically to motivate teachers. Thus, the programs frequently contained design and implementation features that failed to take advantage of the full motivational potential of PBO. For example:

- In some cases, the program was applied to only a small portion of the teaching staff.
- The performance objectives and targets that were used tended to focus only on processes rather than outcomes.
- Feedback on target achievement tended to be infrequent.
- Performance criteria and targets were often highly subjective; specific, quantitative performance targets were rare.
- The linkage between the PBO process and a teacher's overall annual performance appraisal tended to be complex and to de-emphasize the importance of target achievement in favor of subjective ratings of numerous other characteristics.
- Little recognition was provided to teachers who performed well with respect to their targets, although many school administrators believed that such recognition could have a positive impact on motivation. Indeed, greater attention was focused on sanctions for poor performance than on recognition of good performance.
- Only sporadic attention was paid to maintaining and revitalizing the PBO effort after the first several years. Remedies focused on altering the performance appraisal procedure rather than examining the factors associated with improving employee motivation and performance. Strategies for helping to refocus employee attention and energy upon the PBO effort (e.g. the introduction of sanctions and/or rewards for giving serious attention to the PBO process) were not generally considered.
- Where quantitative performance targets had been established, they generally represented minimal performance standards rather than a goal of excellence.

Without attention to the foregoing issues, the motivational effectiveness of the PBO programs examined here is likely to have been compromised. Thus, while the experiences to date with PBO programs for teachers illuminate the issues associated with their use as a stimulus for improved performance, they do not appear to provide a basis for assessing the actual potential effectiveness of such programs for motivating teachers. While a number of pros and cons can be identified in connection with the use of PBO as a motivational tool for teachers (see the beginning of this chapter), there remain a number of critical unknowns: the validity of the procedures as a means for assessing teacher performance; the best approach for linking the PBO process with other performance appraisal procedures; and clear, quantitative, systematic evidence of the effectiveness of such programs when designed with the goal of motivating rather than merely appraising teachers. Systematic trials and evaluations appear badly needed to assess whether non-monetary performance-by-objectives programs, programs that carefully attend to the problems noted above, can effectively stimulate improved teacher performance.

CHAPTER 8

Issues After the Plan Has Been Put Into Operation

Here we discuss issues relating to adequate annual funding by the school district, what should be done about evaluation and revision of the plan after it is in operation, and whether there are any special resource needs for operating these plans.

Will Adequate Funds Be Made Available Each Year?

School districts that introduce a monetary incentive plan will need to adequately fund them each year or they will be undermined. Inevitably there will be temptations during periods of tight revenue to cut back on the dollar allocations, thereby restricting the number and/or size of the awards. "Make sure you have enough money to make merit pay attractive to teachers" (Cramer, 1983, p.35).

Robinson (1983) reported that the Educational Research Service's 1983 survey found lack of funds and inadequate financial incentives to be a frequent cause of the failure of teacher merit pay plans. Penn Manor (Pennsylvania), for example, encountered problems when faced with a tight budget, especially in trying to narrow the field of candidates from those who had been rated outstanding. The choice was to divide the money into smaller amounts for each teacher or to narrow the field further and give sizeable amounts to only a few. In this case, the school board increased the allocation, permitting all those evaluated as outstanding to receive the full $1,000 bonus (Cramer, 1983 and Penn Manor case report).

Many, if not most, school districts place a total dollar limit each year on the money available for awards. This is a natural tendency because of the need to provide a balanced budget. Others, however, did not--such as Houston and Midland, Texas (see Houston case report and ERS 1983). Where dollar limits are not established at the beginning of the school year, the school district takes some risk that there will be an unexpectedly large number of awards. Houston felt that it could estimate the toal cost of the of awards reasonably well, and in such a large school district, any over-expenditure would probably not be large enough to cause a major budget problem.

School districts that provide very limited budgets for incentive awards will force the administration towards the use of quotas or very small rewards, or both. This will lead to concerns (as discussed in Chapter 4) by teachers and the administration that all those who perform meritoriously during the year cannot be given adequate rewards--to the long-run detriment of the plan. It may well be better for school districts that are not willing or able to commit adequate annual funding for the plan not to initiate a merit pay plan at all.

What Provision Should Be Made for Subsequent Evaluation and Revision of the Plan?

It is not likely, and perhaps is inconceivable, that a plan can be perfect the first time around. Explicit provision for periodic evaluation/review seems highly desirable, even if only to assess whether the plan is accomplishing its objectives and is "cost-effective."

Some of the plans that we examined were modified substantially after the initial version. For example, the Houston and Bryan, Texas plans both went through a number of revisions, including changes in the size of award quotas, bonus amounts, and evaluation criteria (see those case reports). Districts such as Catalina Foothills (Arizona), Houston, and Ladue (Missouri) have annual evaluations of their plans.

ERS (1979, p.8) reported the need for continual evaluation so that problem areas can be identified and corrected. The Congressional Task Force on Merit Pay (1983) suggested that plans should be subject "to periodic review for refinement, improvement, or abandoment." Ladue (Missouri) has a standing committee to conduct a continuous evaluation of the program and to recommend desirable changes. The committee includes teacher representatives. Ladue's committee has surveyed both current and former teachers and administrators to help evaluate the program (see Ladue case report).

By and large, the evaluations that we found focused on obtaining staff viewpoints, including those of both administrative personnel and teachers. Sometimes these viewpoints were obtained systematically, for instance through surveys using formal questionnaires, perhaps undertaken by an outside consultant. On rare occasions the districts examined changes in selected criteria related to their objectives, for instance teacher attendance and test scores (see, for example, the Seiling, Oklahoma, and Houston case reports).

Overall, however, we found few attempts by school districts to compare performance on evaluative criteria after the plan began to that for periods before the plan began. School district administrators with whom we spoke often indicated that adequate baseline data were not available and had not been examined. Also, few attempts were made to explicitly look for other plausible explanations for any changes found, such as changing pupil composition or economic conditions (that could explain changes in test scores or teacher retention rates).

The need for review applies to performance-by-objectives plans as well as monetary incentive plans. Newport-Mesa evaluators, for example, urged school districts initiating a teacher accountability system to assess the degree to which the system has been implemented according to the specified procedures and to do this early in the school year so problems can be identified and corrected before it is too late (Niedermeyer and Klein, 1972). PBO plans require considerable added paperwork; the value of this added burden should be periodically assessed to ensure that it is still worthwhile.

A school district developing an incentive plan should attempt to obtain historical data relating to the objectives of the plan (see Chapter 2) so that these data can be compared to similar information obtained after the plan has been in operation. Such data could include student test scores, teacher and student absenteeism figures, as well as systematically collected data on teacher morale and attitudes and on parent and student attitudes.

Such evaluation procedures have the drawback that they require special effort and, perhaps, special resources. However, if the school district wants to be able to assess how successful its incentive plan has been and whether it is worth its cost, these tasks seem necessary.

Are There Special Activities and Resources Needed for Operating the Plan?

Depending on the plan's design, there may be special activities and resources that a district will need to provide throughout its operation.

In the previous section, we discussed the need for an annual evaluation and review process. In addition, special teacher evaluation procedures and data processing may be needed. If the school district moves to a more structured supervisory, or peer, rating process than it has had (involving, for example, systematic classroom observations), special training will be needed for those persons who conduct the observations/evaluations. (A teacher evaluation system using peer ratings will have this problem to an even greater extent since there are likely to be many persons doing the ratings; all the peers need to be trained to achieve reliable, comparable ratings.) Training will also be needed for plans that include a substantial performance-by-objectives component, whether the plan is monetary (see Chapter 5) or non-monetary (see Chapter 7). As we have noted in those chapters, extensive training for participating teachers (and supervisors) in identifying objectives and setting targets will be needed.

Such special training is needed not only in the initial year of the plan but is also needed annually for new staff. Refresher training is also likely to be needed periodically.

Such special training can help defuse perceptions of the lack of objectivity of the evaluation procedures (Cramer, 1983, p.35). For performance-by-objectives plans, such as that in Hyde Park, considerable training is needed to develop skills associated with setting objectives and subsequent appraisals (Gray and Burns, 1979, p.415). The setting of objectives, including the selection of objectives that are both meaningful and measureable, is not an instinctive activity and is not easy. Special training and technical assistance will likely be needed. Lack of such help appears to have caused major problems for PBO plans involving educational as well as non-educational personnel.

Training will be much less of a problem in a plan based on student test scores and other "objective" measurements. However, as has already been discussed, plans based on test scores will likely need to provide for additional testing and probably additional tests, especially tests that better match the district's curriculum (see the Houston and Seiling case reports). In addition, the district will need to provide resources for scoring the test results, and perhaps for special data processing and analysis efforts, using either in-house or outside help. It may be also necessary to provide special security precautions for the testing process.

Finally, it is desirable to provide orientation on the plan to prospective and new teachers. Ladue teachers, when surveyed in a 1983 evaluation of its monetary incentive plan, reported that it was vitally important to orient new teachers to the plan (see Ladue case report and its October 1983 plan description). In the case of Ladue, members of the evaluation committee plan to meet with new staff members by the fifth week of the school year to discuss the evaluation program (the Committee also requested that administrative personnel who interview candidate teachers describe the plan to them).

Unfortunately, we have found no readily available data as to the costs of these activities (e.g. special training, testing, data processing, etc). The cost will depend on the school district's size and its own existing resources. These activities need to be planned for and budgeted by school districts.

CHAPTER 9

How Should the Incentive Plan Be Integrated With Career Ladder/Master Teacher Plans

Career ladder/master teacher plans are generating considerable interest throughout the United States. Numerous variations have appeared, several under the banner of "merit pay." This has led to some confusion over the relationship between merit pay and master teacher/career development programs.

There has been a tendency to lump together teacher merit pay plans and career ladder/master teacher plans. In this report, we draw a fairly sharp distinction between the two and focus on merit pay plans, not career ladder plans. Career ladder plans usually provide salary differentials based on special assignments involving different or additional duties. As such, they give added compensation to teachers that have different responsibilities from other teachers, rather than for a high level of performance for the same basic set of duties. For example, a master teacher plan may call for teaching other teachers, the evaluation of other teachers, or the development of curriculum.

Two general types of master teacher/career development programs are especially important. One class combines features of both merit pay and career ladder plans, providing higher teacher pay grades (and increased stature) for a combination of criteria such as performance ratings, participation in special district projects, educational credits, and longevity. However, the master teacher's primary role is still teaching students. Thus, this type of plan is a merit pay as well as a career development program and is of direct concern to the subject of this report.

The second major approach to master teacher programs emphasizes the creation of new job positions for teachers, jobs with additional responsibilities, extra pay, and - perhaps - added prestige. More importantly, such new jobs often move good teachers away from the instruction of students and into areas such as curriculum development, teacher counseling and training, etc. In general, this type of plan does not represent a form of what is usually termed merit pay, since (1) it is not usually designed to provide a direct and relatively immediate link between performance and pay, (2) such plans do not provide a direct stimulus for improving a teacher's performance with respect to the teacher's present job (e.g. teaching students), and (3) at any given time, such programs probably provide advancement opportunities for only a small proportion of teachers. In fact, candidates for such programs are often selected primarily on the basis of tenure, specialized skills, leadership, expertise as a trainer, and similar attributes other than - or in addition to - job performance (although, of course, performance levels must be satisfactory).

The primary objective of the latter type of master teacher program is usually the recruitment and/or retention of good teachers by providing additional opportunities for earning extra pay and prestige and for assuming new and challenging responsibilities. Improvement of student achievement is usually only a secondary objective, one that is addressed only indirectly (e.g. as the result of retaining and recruiting better teachers, having master teachers develop new curricula, or providing special training and assistance to other teachers).

A potential danger with such master teacher plans is that they may encourage teachers who are very good teachers of students to dilute or change their work in order to receive higher pay--to a job in which they are not as good or as happy. In any case, master teacher programs are likely to involve only a small percentage of teachers at any time and thus will be something of an "elite" program. (How many teachers could be pulled out from teaching pupils to teach other teachers?)

We thus focus here on plans such as that of Evanston, Illinois that has several promotional tracks, combining some features of a differentiated assignment plan (e.g. active participation in district-wide committees and projects), but which leaves the participants primarily teaching students and which makes them meet a substantial teaching performance requirement for incentive pay to be earned. For example, Evanston has five teacher levels, but teachers are still primarily responsible for teaching students, and they are required annually to achieve a particular evaluation rating to stay at that level (see case report). King William County (Virginia) has a somewhat similar plan. In fact, it uses the term "master teacher" and "career teacher" for its top two levels (of four). Again, however, teachers continue to teach students as their major assignment, and their annual performance evaluations must meet specified standards. Both of these plans also involve longevity and educational requirements for promotions to a higher level. Thus, though these plans may be considered by some as variations of master teacher programs, they are considered here as being primarily teacher merit pay plans.

Master teacher programs are in general quite new, and therefore we have not in this effort attempted to assess specific plans. And, as noted, most do not appear to fit well into the category of teacher incentive plans as defined here.

At present, there appears to be even less information on the effectiveness of master teacher plans than on teacher merit pay and performance-by-objectives efforts. Most trials are just beginning. It will take several years to begin to determine the impacts of such plans on teacher recruitment and retention, and probably longer to assess the effects on student achievement and academic excellence (because of the very indirect linkage between such master teacher plans and educational outcomes).

CHAPTER 10

What Should Be the Role of the State Government?

State polices can play a major role in encouraging or discouraging school district incentive plans. State laws requiring or prohibiting collective bargaining have substantial implications for school districts wanting to introduce an incentive plan. School districts covered by collective bargaining are likely to find implementation more difficult, with more obstacles. States may also have specific regulations regarding teacher evaluation practices. Teacher evaluation practices are also affected by the presence of collective bargaining, which can have substantial effects on the ability of school districts to revise their teacher evaluation process. (The early participation of teacher representatives in the development of incentive plans and teacher evaluation procedures can, however, lead to a sounder and more durable program.) State laws regarding tenure and compensation of teachers can also have substantial effects on the form and timing of a plan. For example, as noted in Chapter 3, state laws concerning the treatment of salary reductions as demotions can inhibit districts from providing for performance-based salary reductions in their plans. Each school district will, of course, need to check its own state laws and regulations and determine what constraints exist and what might be needed to alleviate such constraints.

There are other less legalistic roles that the state governments can potentially play. States such as Virginia and Florida are undertaking efforts to either develop teacher evaluation instruments or to provide seed money, such as in Virginia, to pilot test incentive plans. A state government has the advantage of being able to bring to bear more resources in a more concentrated way to identify sound incentive plan practices. Unfortunately, we are not optimistic that this will occur. We do not see much sign of systematic efforts to encourage thorough and comprehensive testing and evaluation of plans within individual states so that other school districts can learn fully from such experiences. The state process seems more likely to either latch onto a particular incentive approach or to let everyone go their own way without adequate provision for coordinated statewide evaluation so that other school districts can obtain useful information from those experiences.

Another potentially important role for states is in the area of student testing. If state agencies could develop appropriate annual achievement tests for school district use, this could greatly ease district problems in assessing student learning progress for incentive purposes.

Finally, states could provide technical assistance and training for school district personnel. As discussed in previous chapters, there are numerous technical and procedural issues on which individual school districts could benefit from technical assistance or training—and probably from both. This would require that a state have staff who can give such assistance and training or that it make available other resources such as university personnel.

PART II - CASE REPORTS

Bryan Independent School District
Bryan, Texas

The School District

The Bryan school district consists of 12 schools (9 elementary, 2 junior high, and 1 senior high). The number of pupils is 10,460, and the number of teachers, 535. The teachers are not unionized but belong to several professional associations such as the Association of Texas Professional Educators. Teacher salaries start at $13,110 going to a maximum of $22,660 for a B.A. For an M.A. the starting salary is $14,080 going to a maximum of $25,220.

Description of Plan

Bryan's merit plan began in the 1977-78 school year. The plan currently consists of a bonus given for "superior" teachers, a bonus over-and-above the regular salary. This plan covers all teachers of all subjects in all grades. Only teachers are included.

In addition to this merit bonus, the district awards "merit retention increments" (MRI), a program that started in 1981. If any teacher gets four merit bonuses (not necessarily in consecutive years), the teacher receives an additional award--a special salary increase--in the fifth contract period.

Each year the school board decides what percentage of the teachers can get a merit bonus and the size. All teachers receive the same size bonus and MRI amount. These amounts have been as follows:

Year	Quota	Merit Bonus Amount	MRI Amount
1977-78	20 percent	$600	
1978-79	20 percent	600	
1979-80	25 percent	600	
1980-81	30 percent	600	
1981-82	30 percent	600	$600
1982-83	30 percent	800	800
1983-84	35 percent	1,000	1,200

The quota percentages are applied to each of the 12 schools, but some flexibility is permitted. If one principal feels that there are more than 35 percent "superior" teachers in his school and another principal awards bonuses to less than 35 percent, then the first principal can hand out bonuses above the quota figure.

In 1982-83, 152 of 533 teachers (29 percent) received bonuses. Approximately 40 percent of the merit pay recipients in 82-83 got MRIs. (That is, 40 percent of their teachers had won the bonus four times.)

The merit pay or bonus is provided quietly without any publicity. In fact, the bonus is included with the regular pay in the same paycheck. A teacher can go to the principal and see the list of bonus winners. (The district holds a ceremony in the civic auditorium for other awards: longevity awards as well as awards made for the "outstanding elementary school teacher of the year" and the "outstanding secondary school teacher of the year." Each of these two teachers receives a check for $700.)

Teacher Evaluation and Selection of Winners

The heart of Bryan's teacher assessment is classroom observation. Classroom observations are done by: the principal, the assistant principal, the curriculum leader from the central office, and the department head or chairman. Each observes the teachers separately during visits scattered over the year. The first visit is by invitation of the teacher. After that, it is unannounced. Where differences occur between the different assessors, it is the responsibility of the principal to work it out. As each observation is completed, the findings are discussed with the teacher.

The ratings, from 1 to 5 on each criterion, are combined by a weighting system into an overall score. The criteria include: personality factors (e.g. enthusiasm, sense of fair play, etc.); social and professional factors (e.g. attitude towards teaching, loyalty to school, etc.); classroom organization and routine (e.g. impartial treatment of students); teaching techniques (e.g. skill in questioning); whether the teacher is active in improving the profession; and teacher involvement in community activities. The ratings for each of the criteria are not anchored. The ratings, therefore, are highly subjective.

Principals may also use other information to help them make their ratings, such as peer observation, pupil or parent assessment, assessment against pre-set targets, and records. The district does not use student achievement (e.g. test scores) as a criterion because it feels that some teachers may have slow learners and others might not. Pupil or parent assessments are used on a very informal basis, e.g. a pupil or parent can come into the principal's office and give an assessment of a particular teacher. Records on absenteeism are included in the evaluation.

The principal keeps a folder on each teacher. The folder contains records about the teacher (e.g. absenteeism), the findings on the observations, the goals set by the teacher, the teacher's self-evaluation done in September (based on the last year's work), and a formal evaluation conducted by the principal in February. At the end of the year the principal examines the folder and nominates recipients.

The principal has to justify his nominations before a central screening committee, consisting of the superintendent, director of personnel, and the director of instruction. This procedure was established to minimize the likelihood that personality conflicts would affect the awarding of the bonus. The screening committee not only examines the reasons why the 35% have been nominated, but also why the other 65 percent have not been nominated. The teachers can appeal to the principal or even to the central committee, but no one has yet appealed to the central committee.

It took the district one year to plan and prepare this program. The district used input from businessmen, PTA members, administrators, and the teachers. The director of personnel obtained the assistance of the teachers in first overhauling the old evaluation system. After that, the merit bonus system was added and the teachers were asked once again to review the evaluation criteria. There was no formal participation from the teacher's associations although their representatives were on the committees that developed the plan. There are continuing efforts to explain the plan to new teachers.

The observers themselves are trained regularly by professors from the local university. This training is held three times during the year.

The board supports this program but leaves the details to the superintendent. The board, however, determines the quota and dollar amounts. The principals nominate the candidates. The remaining work is done centrally.

Evaluation of the Plan

There has been no outside, formal evaluation, but they continually review the plan themselves ("semi-formally"). For example, they have a workshop planned for next July to examine the merit pay plan.

According to our respondent it has affected the teachers in two ways: (a) they appreciate the recognition of merit, and (b) it helps borderline teachers improve. The teachers that receive the bonus are "tickled to death." The others would like to drop it, but there have been no formal complaints. Apparently, the teachers generally like the plan. It has helped, according to the respondent, to recruit teachers because teacher applicants are generally excited about merit pay.

In 1982-83 the cost of the merit play plan was about $169,750, about $320 per teacher in the district. This is the actual cost of the bonus (according to the respondent there is no appreciable cost for administration).

Since there is no special evaluation work undertaken for the merit bonus (teacher evaluation would be done anyway), the only additional cost (over the extra bonuses and salary increases) is that incurred by each principal to justify the nominations before the central committee and the additional computer effort required to add the merit bonus to the appropriate paycheck.

The state government has had nothing to do with the plan. The district found no state laws that have either raised obstacles or encouraged the plan.

Suggestions to Others

The respondent provided two suggestions:

1. The school district should have a good employee benefits package (salary, insurance, etc.) already in place for every teacher. The merit program should not be part of the regular benefit package but should be the "icing on the cake."
2. School administrators cannot sit down in a central office and impose such a plan on the staff. They must get input from the teachers for such plans to succeed. A school system must have the teachers help plan the program.

Sources

1. ERS, "Merit Pay Plans for Teachers: Status and Descriptions," Educational Research Service, Arlington, VA, 1983 pp. 49-50; 103-107; 122-127.
2. Telephone Interview, December 1983 with C.B. McGown, Director of Personnel, Bryan Independent School District, Bryan, Texas.

Catalina Foothills School District
Tucson, Arizona

The School District

The district consists of two elementary and one junior high school, together covering K-8 (no high school). The Fall 1982 enrollment was 1,425. The starting salaries for new teachers are the highest in Arizona. Later steps, however, are about average for Arizona schools.

Description of Plan

Catalina's plan provides annual awards based on performance ratings made by the principals and assistant superintendent. The ratings are based primarily on classroom performance, i.e. process characteristics, using a teacher evaluation instrument with five major categories. In 1982-83, 35 of the 85 eligible teachers employed by the District (41 percent) received merit awards. The lowest award value was $300, the highest was $800, and the average value was $555. The plan began in the 1980-81 school year. It is now in its fourth year (83-84).

A unique feature of the plan is that the teacher, with the principal, selects the particular form of the award, cash being only one form. The awards chosen by teachers include such possibilities as attendance at professional conferences held outside the state and the purchase of instructional or enrichment materials--such as a micro-computer, a telescope, an aquarium, or a camera--all to be used by the teachers in classrooms. Thus far, about 30% of the awards have been in cash, 50% have been used for participation in conferences or workshops, and about 13% for classroom projects/materials.

The principal, or sometimes the assistant superintendent, makes classroom observations and ratings using a standard rating form. For teachers with tenure this is done at least once a year with an interview shortly thereafter. On each of the five primary rating categories (assessing student needs, planning and implementing instruction, student-teacher relationship, evaluating the instructional program, and professionalism), a teacher is rated either: exceeds standards, meets standards, needs to improve, or unacceptable. No quantitative score is developed from these ratings, nor is an overall rating explicitly assigned. Teachers with any one of the five categories rated in the third or fourth level (indicating improvement needed) generally do not receive awards. Completely explicit criteria have not been made official policy, though in the past two years award winners have been those who have received ratings of "exceeds standard" in at least two of the five categories with no ratings of "needs improvement."

The superintendent annually requests a specific amount of funding from the school board for the merit awards. Thus far, the school board has provided the amount requested. The teachers to receive awards are identified in May at the end of the schoool year. The superintendent makes the final decisions based on recommendations from the principals. There is no appeal process. The superintendent's decisions are final. The principals then notify the teachers and discuss with the teacher the particular form of award the teacher would like. The awards are given after the start of the next fiscal year (July 1) with all expenditures being spent by approximately February of the next calendar year. A teacher, for example, could obtain cash, or attend a conference during the summer, or delay using the award until later in the school year.

The teacher evaluation instrument was introduced at the same time as the incentive plan but had been under development before and would have been introduced regardless of the coincidental implementation of the merit plan. The instrument was developed jointly by teachers, school district administrators, and the University of Arizona. It was developed after examining the research on teacher classroom characteristics that appeared to be related to student achievement. The teacher's association, an affiliate of the NEA, did not participate in the formulation of the merit plan. After implementation, recommendations given by individual teachers have been considered and used to modify the plan.

All teachers K-8 are covered by the plan with the same plan and same procedures (e.g. the same teacher evaluation instrument) being used for all teachers in both the elementary and junior high schools. Administrators are not included in the plan. The plan focuses on individual, not group, incentives.

The district's policy is not to release the names of specific individuals receiving the awards, though this information does tend to become known among the teachers.

Evaluation of the Plan

No evaluation had been conducted of the effects of the plan on student achievement such as on standardized test scores. The test scores for Catalina Foothills pupils, however, have risen considerably in recent years, but the superintendent indicated that several other major changes that occurred during this period could also account for these increases. No attempt has been made to obtain evaluations from the parents or pupils regarding the plan. However, after the first year, the district surveyed the 27 teachers who received awards and subsequently interviewed six randomly selected participants and six randomly selected non-participants--to obtain information on their attitudes towards the program. Only minor dissention over the plan was reported in those surveys. (Substantial concern did arise in one school in which the principal had distributed a ranked list of teachers' names. This procedure has been stopped.) After the second year, the teacher's union surveyed the teachers. About 50 percent of the approximately two-thirds of the district's teachers who responded expressed approval of the program. The major concerns of those who indicated disapproval were that they did not know the selection criteria, they did not understand the purpose of the program, and they felt that the program money should instead be given to all teachers or used to buy materials for all teachers. The administration at the end of the second year surveyed first-time participants. The administration's interpretation of these is that the teachers were motivated by the plan.

The administration has pointed to examples of positive actions undertaken by teachers after receiving their awards. For example, a third-year English teacher in a junior high school on returning from an award conference in Boston volunteered to develop a program to evaluate writing in the elementary schools.

The cost of the program has been primarily the amount distributed for awards—about $10,000 in the first year, $15,000 in the second, and $20,000 in the third. An average of about $230 per teacher in the district was paid in FY82-83. Because of the simplicity of the teacher evaluation system, no special data processing or analysis is required. Because the instrument had already been in development at the time of the plan, no additional cost was incurred for generating the teacher evaluation instrument. However, another school district might need to invest funds in developing an instrument satisfactory to the administration and teachers before initiating the plan. No special testing of students is involved, so no special testing costs have been required. The observation time of teachers had already been at least partly required by a state mandate and little extra time has been necessary since the formal procedures do not require extensive amounts of observation time. The schools average under 30 teachers per school and principal observation time has not, thus far, been perceived as being a special burden.

Sources

1. Larry E. Frase, Robert W. Hetzel, & Robert T. Grant, "Merit Pay: A Research-Based Alternative in Tucson," Phi Delta Kappan, December 1982.
2. Educational Research Service, Inc., "Merit Pay Plans for Teachers: Status and Descriptions," 1983, pp. 29-30.
3. Larry E. Frase, Robert W. Hetzel, & Robert T. Grant, "Promoting Instructional Excellence Through a Teacher Reward System: Herzberg's Theory Applied," Planning and Changing, Summer, 1982.
4. Telephone interview, November 1983, with Larry Frase, Superintendent, Catalina Foothills School District.
5. Various descriptive materials and data on the plan provided by the school district.

Evanston Public Schools
Evanston, Illinois

The School District

The Evanston School District (Cook County School District 65) consists of 9 elementary, 4 junior high schools, and 1 school for multiply students (no high schools). There are approximately 6,125 students with 438 teachers.

Description of the Plan

The District has had merit pay for teachers since 1959. The plan consists of five tracks. On any one track, teachers move a step for each year of service. They move to higher tracks based on performance, education, and "outside" activities. Participation in the plan is voluntary.

Track I is for teachers at the beginning level. To move to Track II teachers must either complete a master's degree or on their annual teacher performance evaluations have either three ratings of "exceeds expectation" within a five-year period, or six years of either "meets" or "exceeds" expectation. (These are the two highest ratings; a teacher may also be rated "needs to improve" or "unacceptable.")

To move from Track II to Track III a teacher must complete 15 graduate semester hours, be an active participant in building, department or distribution committees and/or professional organizations for at least three years while on Track II, and as before, have either three ratings of "exceeds expectations" within a five-year period or six years of either "meets" or "exceeds" expectations.

For movement from Track III to Track IV a teacher must have completed a master's degree, had active participation in both building level committees and district-wide educational activities for at least three years while on

Track III, and have had four annual ratings of "exceeds expectations" within a seven-year period.

To reach Track V a teacher must have completed 10 graduate semester hours beyond a master's degree, had active participation and a leadership role on building or district-wide committees and projects, and have had four annual ratings while on Track IV of "exceeds expectations" within a seven-year period.

Teachers on Tracks IV and V are given a special re-evaluation at least every three years. If a teacher receives an evaluation other than "exceeds expectations", the teacher and evaluator are required to initiate steps to return performance to the meritorious level. If a teacher receive a "needs to improve" rating two consecutive years, additional compensation is denied, freezing the teacher's salary.

Teachers are annually evaluated on their performance in five job target areas: 1) teaching skills; 2) classroom environment; 3) communication; 4) interpersonal relationships; and 5) professional contributions. The evaluations are done by the principal or teacher's supervisor. There are three different variations of the evaluation procedure based on tenure status, the previous year's performance rating, and whether the teacher is due for an "in-depth" evaluation.

The "in-depth" evaluation is given to non-tenured teachers yearly and to tenured teachers every three years or as determined by the principal. Approximately 1/3 of tenured teachers receive in-depth evaluations each year. At the beginning of the school year, the teacher and evaluator set job targets jointly, and agree on what help the teacher can expect from the evaluator in meeting the job targets, and on the way in which performance on the objectives will be measured. One of these targets has to be on student performance. The district tries to keep the number of objectives to 2-3 per teacher, believing that more may dilute the teachers' effort and overwhelm them. The evaluator makes a minimum of three observation visits per school year. At the end of the year the evaluator and the teacher prepare written narratives utilizing the observation material and any other experiences relating to the five performance areas. A final conference is held to assess job target achievement. At this time there is an exchange and discussion of the written narratives to appraise performance. Modification of narratives can take place and then a final narrative is prepared by the evaluator. The evaluator completes an "Overall Evaluation of Performance" form.

In the "standard evaluation procedure", teacher ratings are made based on the achievement of job targets, observations by the evaluator (minimum of one), and the final narratives. The "standard modified procedure" is used for teachers who have "exceeded expectations" on the previous performance rating. The procedure is the same except it omits the written narrative required in the performance appraisal section. Use of the latter procedure can be extended a second year if the teacher's performance remains at an exceedingly high level. These two procedures are used only for tenured teachers.

Teachers have the option to apply for movement to a higher level track through evaluation by an Advisory Committee rather than by their principal. In this case a team of five, consisting of three teachers and no less than one principal, will evaluate the teacher. This group is randomly selected. The teacher writes year-long job targets and an extensive narrative describing and documenting achievements on the goal areas. Members of the Advisory Committee each write an evaluation of the teacher and make their own recommendation for Track movement.

A teacher may request a conference with the superintendent after which the teacher may submit an appeal in writing. The Superintendent refers the appeal to the Advisory Committee whose decision is final.

There are no specific guidelines to evaluators as to the relative importance of each of the evaluation procedures (job target achievement, evaluator observations, etc.) or how to combine them into the one overall rating. This is left to the evaluator. To obtain some consistency among evaluators the administration has recently held meetings with the principals to discuss the performance levels that might be expected of teachers given the various ratings.

The district surveys parents on their ratings of a number of aspects of the quality of teaching and for fourteen specific subjects. This is done at the time of the Spring Conference with parents. Tabulations are made by school as well as for the district as a whole. The results, however, are not used as part of the formal evaluation of individual teachers but may be used by the principal as information in determining the overall ratings for teachers. The district has surveyed parents for approximately five years.

The Tracks have pre-set dollar amounts for both vertical (longevity) and horizontal (meritorious) movement. The 1983-84 salary range in Track I, for example, is $16,240-23,061 while the range for Track IV is $21,111-32,642. The maximum salary currently is $36,213, the top of Track V. The merit increases are substantially higher than the longevity increases: longevity increases for 1983-84 range from about $300 to $1,000 while movements across tracks vary from about $1,000 to almost $3,000.

Approximately 10% of the teachers receive awards each year out of the 20-25% that apply. Eleven of the 430 teachers were awarded with merit pay in 1983.

Evaluation of the Plan

Teachers have accepted the program on the whole. The personnel director said there had not been a major problem as yet nor a grievance regarding Track movement.

Although teachers have two forms of evaluation to choose from, the most frequently chosen form has been the principal as evaluator. The committee evaluation method is considerably more difficult, requiring extra effort to prepare the report.

The plan is re-evaluated every two years, but there has been no formal comprehensive evaluation of its impacts. Changes have been made based on the reviews, but these changes have been minor and have not affected the basic framework of the plan. Teachers are involved in the review process.

There is no systematic testing of student learning as part of the plan. (District students have achieved above the national norms on student achievement tests, but the extent this has been due to the plan is not known.)

The personnel director believes that money is a motivational factor for teachers, and the teachers in Evanston take pride in their track. He noted that there was never any problem in getting teachers involved in out-of-classroom activities--they are willing to serve.

The out-of-pocket costs of the plan are primarily those for increased performance-based salaries. For 1982-83 this amounted to approximately $20,240 for about 430 teachers, about $47 per teacher. (Note that only about 20%-25% of the teachers apply for the plan each year.)

Sources

1. Telephone interviews with Ronald E. Mackert, Director of Personnel, Evanston Public Schools, and Ida Lalor, Assistant to the Superintendent, Evanston, Illinois, December 1983.

2. Various descriptive materials on the plan provided by the Evanston school district.

3. ERS, "Merit Pay Plans for Teachers: Status and Descriptions", Educational Research Service, Arlington Va, 1983, p. 35.

Houston Independent School District
Houston, Texas

The School District

The Houston Independent School District has over 190,000 pupils, about 9,500 classroom teachers, and 232 schools (169 elementary, 35 junior hign, and 28 high schools).

Description of Plan

Houston's "second mile plan" began in the 1979-80 school year. It is now in its fifth year (83-84). In the first year, approximately two-thirds of the teachers received awards. In subsequent years this fell off somewhat to between about one-third to one-half percent. The information on this is not clear as the school district information system does not provide this data. (It does, however, provide information on how many bonuses of each type have been earned, but not how many different teachers have earned one or more.)

The plan has three highly distinctive characteristics:

1. It is highly structured and objective with specific quantifiable elements that directly determine who gets the awards and their amount--basically a "formula" approach.
2. Student test scores are an important part of the plan, and
3. The student achievement bonus is a group rather than individual incentive with the school being the award unit (all teachers in a school receive awards).

There are six elements on which teachers can obtain bonuses ("stipends"):

1. Teaching at schools with a concentration of educationally disadvantaged students.
2. Teaching assignments in subjects with critical staff shortages such as secondary science, secondary mathematics, bilingual education, and special education.

3. Completion of additional qualifying education.
4. Teaching at a school labeled as "unique," e.g., having special students or a new campus.
5. Exceeding a baseline teacher attendance requirement.
6. Teaching in a school assessed as having made "outstanding educational progress (OEP)".

A teacher can receive a bonus for one or more of the above elements. For the purpose of this report, the first four elements are not considered "incentive" pay and will not be discussed further here.

To receive any of the above awards, the individual teacher must meet all of a number of prerequisites. Of particular concern here are three of these.

The first is a requirement that the teacher achieve a rating of at least 3 on a scale of 1-4 in a teacher evaluation rating. This teacher assessment is made by administrative personnel such as a principal, instructional supervisor, or assistant superintendent, usually in February or March of the performance year. The rating is of a number of factors contained on a teacher assessment instrument. A score of below 3 on any factor means that the teacher needs improvement and thus is not eligible for any award, even if the teacher is teaching at a school that receives an OEP award. This teacher assessment screens out approximately 5-10 percent of the teachers. Though a structured questionnaire is used, this is the one element in the process that involves subjective judgment rather than objective criteria. The teacher assessment procedures were a standard practice at Houston before the incentive plan was implemented. It is during these teacher assessments that attempts to identify specific improvements in individual teacher performance are focused, rather than in the merit pay plan.

The second relevant prerequisite is a minimum attendance requirement. It was originally set at ten or less days of absences during the current school year or an average of five days or less during the most recent three years. In the second year of the plan, this was reduced to five days during the current year. Because of this, the number of bonuses paid in the second year dropped off considerably. The district is considering returning to the ten-day target for attendance as an eligibility requirement, rather than five. The five days may be too restrictive.

Beginning in the fifth year, 1983-84, an additional prerequisite has been included. Teachers now need to pass Houston's new basic skills proficiency test. A teacher will need to take the test once every 7 years. The District staff estimate that the new requirement will reduce the number of awards by approximately 25 percent.

If the teacher passes the baseline requirements, and has less than the minimum number of unused absence days, the bonus is increased approximately $100 for each day of absences less than the target (this would mean $500 for zero absences).

The "outstanding educational progress" assessment is based on the extensive standardized testing undertaken by Houston. The Iowa Test of Basic Skills has been used for Grades 1-9; the Test of Achievement and Proficiency (TAP) has been used for Grades 10-12. (There are two or three forms of the tests which are rotated from year to year. However, it is conceivable that a teacher could remember the questions from one year and teach the class to those questions. The administrative staff believes this is unlikely.)

The analysis of the scores to identify schools meriting an OEP school is complex. In the first year the average gain at a school for all students was calculated, and the resulting school averages were ranked within individual groups of schools--with the groupings based on each school's proportion of free and reduced lunch students. Regardless of the magnitude of the gain score, the top 50 percent of the schools received OEP recognition.

There was considerable complaining by teachers of limiting awards to 50 percent with possibly meritorious schools not thereby being eligible. In the third year, a statistical regression equation approach was introduced in which an expected score for each school was determined based on several characteristics of the school, such as the free and reduced lunch rate, student mobility rate, proportion of special students, previous year's achievement data, and teacher turnover rate. The actual test score for the school was then compared to the score estimated (predicted) by the equation. Teachers at any school that exceeded its predicted target could receive the OEP bonus. This change not only eliminates the "quota" but also shifts from having schools compete against each other to competing against one's own past performance.

Because the teachers found this procedure too difficult to understand, Houston, beginning in 1983-84, has simplified the calculation process, dropping the regression equation. The school's average gain score (e.g. the gain from the second grade last year to the third grade this year) is compared to the school's gain score for the previous year. If the average gain score has improved by at least one month, the school becomes an OEP school.

The OEP bonus was $800. It has been increased for 83-84 to $1,000 to put more emphasis on this component of the plan.

Each school that is an OEP school for the year gets a flag that it can fly for the whole year. This provides an indication to the community that the school has been an outstanding educational progress school.

There is an appeals process. Thus far there have only been a small number of them, perhaps 20 per year. The Appeals Review Board consists of administrative personnel only.

The district's teachers have representation from NEA, AFT, and a State association. However, Texas does not have a law permitting collective bargaining, and the teacher association role has been quite limited in the plan. Teacher reactions, however, have played important roles in changes made to the plan.

The awards for teacher attendance and outstanding educational progress are paid in the fall of the school year following the school year for which they are earned. The program covers only teachers, no administrative or clerical personnel.

Participation is voluntary; teachers must formally apply for their awards. They can volunteer up to the time when the awards are to be paid out and after all data have become available. It is not known whether any teachers that would have been eligible for one or more awards have not bothered to apply for them. (This voluntary aspect provides a face-saving element; teachers that did not earn any award could then say they did not bother to apply, leaving an ambiguity as to whether they would have received one had they applied.)

The State's role in this effort has been small. The district found no obstacles from state laws when it began. The lack of a collective bargaining law made it easier to implement the plan. No state dollars or technical assistance were used.

Evaluation of the Plan

The school district undertook a formal evaluation of the plan after two years. It found that teacher absences had decreased from an average of 9.0 days the year before the plan started ('78-'79) to 7.6 days in 1980-81. More recent school district reports indicate that absences averaged 5.5 days in 1982-83. Teacher turnover decreased from 23.9 percent to 20.6 percent (to 13.9% in 1982-83) Teacher vacancies decreased from 613 to 376 (and to 221 in

1982-83) with critical staff vacancies decreasing from 251 to 186 (to 87 in 1982). The data on student achievement, however, does not show an appreciable improvement over the '78-'79 year, the year before the start of the plan. Teacher attitudes were found to be quite mixed, with non-recipients of the awards consistently negative. There have been no formal evaluations since the end of the second year. There has been no formal attempt to obtain feedback from the parents or the community. The district has not received any complaints from parents.

Administrative staff have not observed any specific changes in teacher practices (this is a very large school system). The turnover rate and absenteeism have improved substantially, and vacancies in special fields have been easier to fill. It may be, however, that economic conditions over the period since introduction of the plan have been a major cause of these improvements.

Principals, after finding their schools were not included as an OEP school, have on occasion called the plan's administrative staff to inquire why and to obtain suggestions as to what they can do about it. Because of the aggregate nature of the test scores, central administrators, however, have not been able to provide concrete guidance to individual schools. The schools (as before) have access to the details of the test scores and can use that information to find out which grades, which classes, which teachers, and which components of the test were particularly weak in their schools. It is not clear, however, that there is any systematic attempt to examine the test score data in detail to provide suggestions for future improvements.

As noted earlier, the teachers expressed early concern about what was a quota system for OEP awards. The latest procedures mean that theoretically all schools could be a recipient in a given year since each is compared against its own past performance. This could cause budget problems. The administrative staff, however, have found so far that their experience with the plan permits them to provide a fairly accurate budget estimate; they are not very concerned about the possibility of awards significantly exceeding budget.

Over the long run Houston would like to introduce new proficiency tests for individual courses and is beginning to work on this. This would then permit the plan to be converted to an individual incentive plan for individual teachers, which they feel is not feasible now. Note that with the current plan, teachers whose students do not do well on the test scores may, nevertheless, receive an OEP award if overall their school does well. And teachers whose students do very well on the test scores, but who are in a school that does not do well on the tests, may not be eligible. Thus, the school district does not label the Second Mile Plan a "merit plan," but rather an incentive plan. Meritorious performance by an individual teacher, the district notes, is not necessarily rewarded because of this group incentive feature. On the other hand, the group incentive approach has the virtue of encouraging cooperation among teachers and avoids destructive competition. However, thus far the school district has not specifically identified major instances of improved cooperation as having occurred since the plan was changed.

The cost of the bonuses was approximately $11 million total for the first two years, $7 million for the third year, $11 million for the fourth year, and is budgeted for $9 million in '83-'84. (The anticipated reduction is based on the reduced size of individual bonus awards for all but the OEP program and a reduced number of awardees because of the new teacher proficiency restriction.) The cost represents $700-$1100 per teacher for bonuses in the school system per year. The plan also requires approximately two full-time clerical persons for the system. There is also considerable administrative time required in individual schools and by central staff to track achievement of the baseline requirements and to handle the extra bookkeeping items. The district has no estimates of how much time or dollars these tasks require. The school district does not do any additional testing over what it had done before, since it already had an extensive testing system underway and would have continued that testing. It has not yet developed any new tests.

Suggestions to Others

School district personnel had the following suggestions for other districts:

1. Have large enough awards, such as $1,000 a year, to be able to motivate people.
2. Provide awards to enough people but not to all (do not have a quota system).
3. Adapt your plan to the local situation. If the school system has no problem with teacher attendance or vacancies, don't provide bonuses for these conditions. That is, the school system should decide on areas that it wants to improve and put elements in the incentive plan to encourage improvements in those areas.
4. The school system should be flexible and prepared to modify its plan as the need arises.

Sources

1. Houston Independent School District, "The Second Mile Plan," April 1983.
2. Elaine Say, Memo on "Two-Year Impact Study of Second-Mile Plan," April 23, 1982, Houston Independent School District, Houston, TX.
3. Michael Mauldin, Memo on "OEP Feasibility Study," June 8, 1981, Houston Independent School District, Houston, TX.

4. Leslie Miller and Elaine Say, "This Bold Incentive Pay Plan Pits Capitalism Against Teacher Shortages," The American School Board Journal, September 1982.

5. Elaine Say and Leslie Miller, "The Second-Mile Plan: Incentive Pay for Houston Teachers," Phi Delta Kappan, December 1982.

6. Telephone interview with Elaine Say, Research Associate, Research and Evaluation Department, Houston Independent School District, December 1983.

7. Educational Research Services, "Merit Pay Plans for Teachers: Status and Descriptions," 1983, pp. 51-52.

King William County Public Schools
King William, Virginia

The School District

The King William County Public School District consists of one elementary school (K-7) and one high school (8-12). There are approximately 1,500 students enrolled and 95 teachers. The salaries for teachers range from $12,337 to $18,162 for teachers without Master's Degrees and from $13,537 to $19,362 for teachers with Master's Degrees.

Description of Program

King William County's Teacher Incentive Program started in the 1982-83 school year. It awards higher salaries to teachers who have successfully demonstrated excellence in professional preparation and performance. The goals of the program are to attract and retain excellent teachers, reward excellence in teaching, and thereby promote superior instruction. Librarians and guidance counselors are also included in the plan.

The Teacher Incentive Program has a four-step salary ladder. Movement up this ladder depends on successful completion of criteria for each level. Participation is voluntary; teachers apply for each level.

New teachers, probationary teachers, or tenured teachers who have chosen not to participate at a higher level of the plan start at Level I: Teacher Status. Teachers on this level are paid according to the regular salary schedule.

The second level, Senior Teacher, rewards teachers who have achieved an average evaluation rating of 4.5 in addition to the qualifying criteria. A bonus of $2,000 is applied to the teacher's base salary for the following year.

After at least four years participation at the second level, a teacher may apply for Level III: Master Teacher, if the teacher holds a Master's

Degree or a King William County Professional Growth Program Certificate in the subject area or grade level of assignment. A successful evaluation of 4.5 at this level rewards teachers with a $2,000 Teacher Incentive Program bonus plus a $2,000 Master Teacher Level bonus, as well as $1,200 for the Master's Degree as part of the regular salary schedule.

To advance to Level IV: Career Teacher, a teacher must have successfully completed eight years in the Teacher Incentive Program. In addition, a teacher must be recommended for Career Teacher status by professional members of the Principal's Advisory Committee. A teacher at this level would receive the $2,000 Teacher Incentive Program bonus along with $4,000 awarded for the Career Teacher Level, and the $1,200 Master's Degree differential built into the regular salary schedule.

To remain eligible each year for the Teacher Incentive Program, a teacher must be a full-time classroom teacher, librarian, or guidance counselor, have three or fewer days of absence that are unexcused, have achieved continuing contract status, have had two consecutive years of superior teacher performance evaluation from the school principal as evidenced by a 4.5 average rating each year, and have made a minimum score of 475 in the common areas and 475 in the subject area of the National Teacher Examination (or correlated scores on the Graduate Record Examination), and have had a successful performance evaluation (4.5 average rating on the last rating) by an outside team of evaluators.

Teachers are evaluated initially and again every four years by a team of three experts. Two members of the team are appointed by the superintendent and are central office staff members. The third evaluator is chosen by the teacher from the superintendent's list of approved evaluators, or a teacher can request an alternative evaluator subject to approval by the superintendent. University professors have been chosen most frequently by teachers as their third evaluator.

Each member of the evaluation team makes at least two observations, one announced and one unannounced. Classroom observations are approximately 50 minutes. Observers rate a teacher's performance on seven points: (1) instructional methods; (2) knowledge of subject area; (3) ability to motivate students; (4) classroom management; (5) student/teacher rapport; (6) appropriate student evaluation; and (7) demonstrated student learning. Each is rated on a scale of 1 (low) to 5 (high) degree of achievement. Teachers may also provide the evaluation team with written documentation of instructional activities.

A teacher can renew an award annually by obtaining a 4.5 average rating by the principal along with participation in some professional growth activity such as coursework or participation in an approved instructional conference. Teachers have the option of renewing at the same level; however, every fourth year the additional requirement of a 4.5 average rating by an evaluation team must be met. The performance evaluation rating required for the salary supplement is the same at all three levels.

Evaluation of the Plan

In the first year of the Teacher Incentive Plan, 10 percent of the teachers received awards. Fourteen teachers had applied; however, only nine met the necessary criteria. Of the five that didn't meet the requirements, the Assistant Superintendent felt that they had applied primarily to see what the program was like.

The Superintendent has been pleased with inter-rater reliability. At the inception of the plan it was not clear whether the ratings of different observers would vary significantly among the group. However, the ratings were highly consistent.

The Superintendent noted that the absence level of teachers has declined noticeably. For example, at one school, in the 1981-82 school year, six teachers had perfect attendance, whereas during the first year of the plan, 1982-83, 17 teachers had perfect attendance. The district speculates that this is because teachers are trying to meet the attendance requirement with the intention of applying for the program in the coming years. The district notes that although teachers say that the plan has not affected their behavior, the attendance statistics indicate that there has been some change.

No evaluation has been done, such as on impacts on student attendance or student learning as indicated by test scores. At this time there is no provision for an evaluation of the program itself. The district is pleased with the results of the 1982-83 school year. The plan is only in its second year; there has not been sufficient time to assess the longer term consequences such as on teacher retention rates.

The administration has had only one known instance of staff dissention as a result of the plan--from a teacher who was unhappy at not meeting the baseline criteria. They attribute the lack of objections as stemming from the plan being voluntary and from the existence of clearly defined and reasonable requirements.

The district administration believes that the community supports the program and wants to reward superior teachers. The district is not worried about whether or not a parent will want their child in a class where a teacher is not in the program because they generally feel that the parents know when their child is learning and they already know who the good teachers are.

Funding for the program is requested annually through the school board to the County Board of Superintendents. Budgeting for teacher incentive pay is a separate line item on the budget from regular teacher salaries. In the first year, $25,000 was requested. Approximately $1,500 was used to pay for National Teacher Examination fees and also covered the $50 stipends paid to outside evaluators to cover travel and related expenses. The system expects to add a small number of participants each year. The salary supplements will be added in small increments over a number of years until the program is fully implemented.

Sources:

1. Educational Research Service, Inc., "Merit Pay Plans for Teachers: Status and Descriptions," 1983, pp. 156-157.
2. Telephone Interview with Mrs. Claiborne R. Winborne, Assistant Superintendent for Administrative Services, King William County Public Schools, December 1, 1983.
3. King William County Public Schools, "Teacher Incentive Program," Rev. 8/21/83.

Ladue School District
Ladue, Missouri

The School District

The Ladue School District consists of four elementary schools, a junior high school (7-8), and a senior high. Ladue's 250 teachers serve a student population of about 3,100. Teachers and other professional staff (including some administrators) belong to the Ladue Educators Association. Since Missouri is a "meet-and-confer" state, there are no negotiations over wages and salaries between the teachers' association and the school district.

For the 1983-84 school year, entry level salaries in Ladue were $14,300 to $14,700. In principle, there is no maximum salary (some teachers are currently earning in excess of $38,000 per year). The average teacher's salary in Ladue in the Fall of 1983 was over $29,000.

Description of the Plan

Ladue's merit pay plan involves performance-based wage increases for individual teachers. The plan has been in operation since 1953 and covers all certified personnel, including teachers, counsellors, and librarians. Under the plan, there are no fixed salary steps and no maximum salary levels. Salary increases for a given year are based entirely on the results of the annual performance appraisals plus, in some years, an across-the-board (cost-of-living) increase. No salary increases are given on the basis of a teacher's tenure or educational credentials.

The performance of each teacher is evaluated annually by the teacher's principal or (in the secondary schools) assistant principal on a scale of 0-9, 0-11, or 0-15 points, depending on the salary schedule used (see below). There are no quotas on the number of individuals who may receive a given rating score. Each evaluation point is worth a fixed number of dollars towards the teacher's merit increase. For the 1982-83 school year, each evaluation point was worth $300. Teacher performance rating scores that year ranged from 7 to 15, corresponding to wage increases of between $2,100 and $4,500 for each of the district's 245 teachers. The average increase was $3,300, or about 12 percent of the average salary level in Ladue for the 1982-83 school year. Over the last several years, performance increases have reportedly averaged approximately 10 percent of a teacher's salary.

Teachers in Ladue are assigned to one of three separate salary schedules, depending on experience, performance, and other factors. Associated with each schedule is a range of possible performance rating scores and an expectation as to which score corresponds to "satisfactory" teaching performance. On schedule I (for beginning teachers), the possible performance ratings are 0, 3, 5, 7, and 9. Satisfactory performance corresponds to a rating of 5 points; exceptional performance could be rated 7 or 9. Schedule II has possible performance ratings of 0 to 11, with 7 the expected rating for satisfactory performance. Similarly, a third salary schedule (for teachers who have performed very well for several years) permits performance ratings between 0 and 15, with 9 the expected level for satisfactory performance. There is no limit to how long a person can remain on a given schedule, and promotion from one schedule to another can occur in any year.

Promotion to a higher salary schedule is accompanied by a fixed "incentive increment" in the form of a certain number of evaluation points. A teacher moving from schedule I to schedule II will receive 10 evaluation points; movement from schedule II to schedule III results in a bonus of 12 evaluation points. These constitute the sole basis for computing the teacher's merit increase for that year (the teacher's performance rating score is not used to compute the increment when moving to a new salary schedule).

In subsquent years, however, the teacher's salary increment is again determined by the annual performance rating.

The performance evaluation procedure is highly subjective, although the process has been defined in great detail. All teachers are rated on five general areas: effectiveness in teacher/student interactions; effectiveness in relationships with colleagues; effectiveness in contacts with parents, patrons, and community; effectiveness in contributions to the total school program; and effectiveness in curriculum development and professional improvement. Associated with each of these general areas are several performance characteristics that are used to assess teacher performance. For instance, "effectiveness in teacher/student interactions" includes the following performance characteristics (among others):

A. The teacher's interactions with students reflect pre-planning with attention to both individual and group needs.

B. The teacher's interactions with students are supported by instructional materials.

C. The teacher demonstrates identifiable skills in lesson presentation.

D. The teacher maintains a learning environment which encourages mutual acceptance and respect.

For each of these characteristics, several behavioral examples are provided to show how the characteristic might be applied to a given teacher's work. For example, the behavioral descriptions associated with characteristic A above are:

1. The evidence of planning is identifiable.
2. There is evidence of short-range planning.
3. There is evidence of long-range planning.
4. There is evidence of planning to accommodate the needs of the special learner.

These characteristics and behavioral statements were developed over a two-year period with the assistance and participation of teachers. The evaluation criteria focus on the teaching process (as opposed to outcomes), an emphasis that Ladue administrators believe to be consistent with the state-of-the-art in current research on the teaching process. They also believe that this focus properly places the emphasis on the controllable aspects of teaching behavior.

School administrators in Ladue do not believe that the available measures of educational outcomes (such as test scores) can be used as valid indicators of teacher performance at this time. For instance, student test scores in Ladue tend to be so high that a single incorrect answer can often mean a difference of several percentiles. Because of these instabilities, testing is used only for diagnosis, not for performance evaluation and the awarding of merit pay.

The primary evaluation procedure is supervisory observation, although the monitoring of performance targets (in the form of improvements recommended by the evaluator) has assumed increasing importance in recent years. Ladue teachers have opposed the use of peer evaluations (as being too divisive) or evaluations by students. Principals are given considerable flexibility in selecting how they will evaluate and monitor their staff. Teachers must be observed at least three times per year, each time with a pre- and post-observation conference. The supervisor's observations are written up in the form of a narrative (the use of checklists has also been opposed by Ladue teachers).

In recent years, principals have been providing several recommendations for improvement in connection with each evaluation. These are used to focus teachers on organizational priorities (e.g. "become more familiar with computers") and remedial needs. Achievement of the recommended improvements is not in itself sufficient to earn an outstanding performance appraisal rating.

All performance evaluations are completed in February and March, and teacher salaries, including any performance increments, are announced in April. Teachers may appeal the evaluation process to the superintendent or the board of education. They may not, however, appeal the substance of an evaluation. School administrators report receiving about 10 to 15 appeals in a typical year.

The school district spends considerable time and money training the principals in the process of evaluation. To help ensure consistency among the performance evaluations, the school district requires central review of all performance evaluations by the superintendent, and joint reviews and critiques of the performance evaluations by the principals as a group. During the joint reviews, principals defend their evaluations to other principals, while the latter provide feedback. School administrators report that this has helped ensure a common understanding of the various ratings and their definitions. Periodic rotation of the school principals, and the low turn-over of principals and other evaluators, have also reportedly enhanced the integrity of the evaluation process.

The size of the merit increases earned in a given year is determined by the number of dollars that the school board assigns to each evaluation point. For the 1982-83 school year, each point was worth $300 and there were no across-the-board increases. For the 1981-82 school year, the board awarded $150 per point plus a $500 across-the-board increase for each teacher. In some years, the value of a point has been as low as $100. However, since there are no quotas on performance scores (and hence, on the number and size of the awards given in any year), teachers do not have to compete against each other for a limited number of awards.

In the 1982-83 school year, the minimum performance rating received by a teacher in the Ladue school system was 7 points. Thus, all teachers received at least some increase. In prior years, however, some teachers have received no increase at all or an increase below the standard expected for adequate performance on their salary schedule.[1] Teacher salaries have not, however, been reduced for poor performance. Under Missouri law, such a reduction would be viewed as a demotion and would require a formal public hearing.

Merit pay is budgeted by the school board as a separate line item. Historical data on the distribution of rating scores is used to project an average increase for budgetary purposes. The board must also decide whether to include a fixed across-the-board increase with the merit increases. In deciding on the amount to budget for such cost-of-living increases, the board has generally allocated most of the available funds to merit increments. For instance, school administrators suggest that for an average pay increase of 10 percent, no more than 3-4 percent would be provided as an across-the-board increase; the remaining 6-7 percent would be awarded on the basis of merit.

Teacher salaries and the amounts of any performance awards are generally kept confidential in Ladue. The school board denies requests for information on teacher salaries, although such information must be reported to (and is available from) the State of Missouri. The public, however, is reported to be largely unaware of individual teacher salaries in Ladue. Salary confidentiality is also apparently the norm for teachers in Ladue's elementary schools. However, teachers in the junior and senior high schools reportedly exchange some salary information.

---

1. Note that because teachers in Ladue can earn increases even with substandard performance, Ladue's "merit pay" should probably be viewed as a combination of performance-based and cost-of-living increases.

The school district makes a point of training and retraining teachers in the operation of the merit pay plan. All prospective new teachers are briefed on the merit pay plan during their initial job interview. Once hired, the new teacher is again briefed on the performance appraisal process and the merit pay plan by the building principal, by the "sponsoring teacher" assigned to each new recruit, and by the building representative to the Committee on Evaluation (see below). The building representative is also responsible for briefing all teaching staff on changes in the plan.

A fundamental feature of Ladue's merit pay plan is its emphasis on monitoring and updating the program on a continuing basis. From the very beginning of the plan, there has been a Committee on Evaluation charged with reviewing and modifying the plan as necessary. The Committee consists of the superintendent, building representatives elected by the teaching staff in each building, and a representative from the administrative staff (elected by the principals). This committee has conducted employee surveys and other studies that resulted in a number of changes to the plan since its inception in 1953.

Teacher participation has been high. The plan was developed in 1953 by a committee of six teachers and four administrators appointed by the superintendent. The original evaluation criteria were developed on the basis of a survey of all teachers by the Committee on Evaluation, and teachers continue to exercise considerable influence on the selection of evaluation criteria for the plan. The Committee on Evaluation still meets at least once a month to discuss Ladue's merit pay effort, and major reviews and revisions of the plan have occurred regularly. The following are some of the changes that have been made:

1. Prior to the 1979-80 school year, teachers in Ladue received performance increases of $600, $700, or $800, depending on their evaluation. However, by 1978 most teachers were receiving the top increment of $800, and an increment of less than $800 was widely

viewed as a penalty. The board of education wanted the system to provide a wider range of performance awards by increasing and broadening the increments. The idea was for most teachers to get the average increment, while better teachers would get a much higher award. As a result, the award system was changed to the procedure currently used, in which teachers can receive a performance evaluation score of between 0 and 9 (or 0-15, depending on their salary schedule) and a dollar value is assigned to each point.

2. Prior to the 1978-79 period, teachers were evaluated on the basis of three general criteria: personal characteristics, professional growth and development, and evidence of superior teaching. The need to make finer distinctions in order to award an evaluation score of 0-15 points led to the development of the more refined five-area performance evaluation procedure described previously. The revised procedure also incorporated the findings of recent research on factors that contribute to better learning.

3. Over the 1981-82 period, the performance evaluation procedure was further refined by the development of the behavioral criteria described previously.

4. A continuing issue has been the treatment of extracurricular activities. Teachers in Ladue receive no additional pay specifically for undertaking such activities. This has led to considerable dissatisfaction, especially among secondary school teachers. After a yearlong study, the Committee on Evaluation recommended that there be a separate salary schedule for persons supervising extracurricular activities. The school board, however, rejected this approach and instead directed evaluators to take account of extracurricular activities when rating teacher performance. In particular, the rating must reflect both the quality of the work and the time spent by the teacher on the task (the latter factor takes account of extracurricular duties)..

Evaluation of the Plan

Ladue's merit pay plan has undergone a number of evaluations. The Committee on Evaluation has periodically reviewed the program and surveyed teacher opinion. Others have examined specific aspects of the plan in detail (see Shaughnessy, 1976). Natriello and Cohn (1983) recently completed an examination of the history and evolution of Ladue's merit pay plan, including interviews with key administrators and with 23 teachers from one elementary school. On the other hand, there have been no formal evaluations of the impacts of Ladue's merit pay plan on outcomes such as student achievement, behavior, and attitudes, or on the teaching process itself. Most of the available information on the effects of the Ladue plan consists of subjective assessments by school administrators and teaching staff.

School administrators in Ladue feel that the merit pay plan has been responsible for improving instruction (ERS 1983, p. 42). This view was seconded by several teachers in one elementary school who reported that the presence of merit pay had led them to increase their efforts and to improve instruction (Natriello and Cohn, 1983, p. 28). Such results are attributed to the fact that the merit pay plan and the associated evaluation system have made teachers more accountable for their performance. School administrators note that teachers in Ladue are recognized and rewarded for doing things well, for coming up with new approaches to old problems, etc. Such efforts are frequently cited in teacher performance evaluations as reasons for awarding increments.

Ladue's merit pay plan is not credited with any special effects on teacher retention or the ability to recruit new teachers. School administrators note that teaching salaries in Ladue are relatively high and that there is correspondingly little turnover. While administrators feel that the presence of merit pay cannot be shown to have actually attracted teachers to Ladue, it has also reportedly not dissuaded attractive candidates. Some teachers, moreover, feel that having merit pay, rather than a seniority system, has helped the school system retain its best teachers and maintain instructional quality (Natriello and Cohn, 1983, p. 29).

Ladue school administrators noted a number of other benefits from the merit pay plan. One is increased accountability for principals (Natriello and Cohn, 1983, p. 25). Each principal's teacher evaluations are reviewed by the superintendent and by the other principals; they also come under close scrutiny from the teachers. This reportedly encourages the principals to pay more day-to-day attention to the educational process and to spend considerable time with their staff monitoring and appraising performance. Other reported benefits include better documentation of teacher performance and greater recognition of the teacher as an individual.

According to Ladue school administrators, the merit pay plan has not been a prominent issue in labor-management relations, with the exception of the question of extra pay for extracurricular duties (discussed previously). (As noted above, teachers do not bargain collectively over wages and salaries in Ladue.)

School administrators report a high level of support for the merit pay plan from parents, the school board, and other members of the community. The school board has provided reliable funding for the plan since 1953 with increases for all who deserve them, avoiding any need for teachers to compete against each other for a limited number of awards. While many of Ladue's citizens were unaware of the plan until recently, the publicity which it is currently generating is reportedly creating a favorable image for the school system within the community.

School administrators have not computed the total cost of Ladue's merit pay plan. The primary expenditure is for incentive awards. In 1982-83, the cost of awards was approximately $810,000, an expense that will continue to be incurred in future years since the awards represent an increase in salary rather than a one-time bonus. (On the other hand, these raises substitute at least in part for across-the-board increases that would have been provided otherwise.) School officials note that administration of the plan probably costs considerably more than administration of a typical teacher salary schedule. It is estimated that each principal must spend about 20 hours per year per staff member completing the necessary evaluations. Program maintenance and staff retraining require an additional 30-40 staff-hours per year. And members of the Committee on Evaluation meet 1-2 hours per month to review and revise the merit pay program. The plan is operated without the need for special data processing, analyses, or testing, and it does not currently require special staff for its administration. However, when major changes have been implemented, it has sometimes been necessary to temporarily assign someone to help with the plan.

Teacher opinion on the plan appears to be ambivalent. Most Ladue teachers appear to favor the principle of using merit pay, but significant numbers are dissatisfied with specific aspects of Ladue's approach. For instance, while 85 percent of the teachers responding to a recent survey favored a system of merit pay, only 34 percent favored the system being used by Ladue (Silva, 1983). Similar assessments have been given by school administrators.

In their interviews of 23 teachers in one Ladue elementary school, Natriello and Cohn (1983) found teachers reporting both strengths and weaknesses in connection with Ladue's merit pay plan. The weaknesses included the subjectivity of the evaluation process (and associated problems of favoritism and inter-school inconsistency), morale problems (especially dissatisfaction with the treatment of extracurricular activities under the merit pay plan), uncertainty concerning what must be done to earn the "best" performance ratings and merit awards (some claimed that one had to be a coach in order to earn the maximum of 15 points), and the absence of adequate opportunities for appealing performance evaluations (especially after they have been put in writing). On the other hand, these same teachers pointed to a number of strengths in Ladue's merit pay program: the availability of monetary rewards for superior performance, the encouragement of improved classroom instruction, the responsiveness of the merit pay system to teacher concerns (through the provision of numerous opportunities for participation), and the sense of professionalism fostered by the plan. Of the 23 elementary school teachers interviewed, 22 felt that the merit pay system worked largely because salary levels were kept confidential (Natriello and Cohn, p. 27).

Ladue school administrators report that the teachers' primary complaint about the plan is the treatment of extracurricular activities (see p. LA-8). Another is the equitability of the pay plan with respect to pay levels in other school systems. For instance, teachers with masters degrees and considerable experience are reportedly able to earn better salaries in other school systems, which reward tenure and educational attainment rather than merit. Other common complaints by teachers include the additional stress of working under a merit pay system and the frustration of not knowing precisely what needs to be done in order to earn a top rating (Natriello and Cohn, 1983; Silva, 1983).

Ladue administrators believe that some of these problems have occurred because many teachers do not completely understand the philosophy and procedures associated with the change from awarding fixed merit increments of $600, $700, or $800 to the use of variable awards based on performance appraisal points. Thus, some teachers report that they were more satisfied with Ladue's previous approach to merit pay, under which they received the maximum award of $800. Even though the rewards are larger under the current system, these teachers feel that they are not performing adequately if they receive less than the maximum number of performance evaluation points.

Some Ladue teachers report that the merit pay plan has created morale problems, causing teachers to become money conscious and less cooperative (Natriello and Cohn, 1983, p. 32). Morale problems and disenchantment with the merit pay plan are reported to be especially intense in the junior and senior high schools. The elementary school teachers interviewed by Natriello and Cohn attributed much of that dissatisfaction to the sharing of salary information by secondary school teachers. However, many other theories have been offered to explain the reported dissatisfaction of Ladue's secondary school teachers, and no single explanation seems sufficient (see, for instance, Natriello and Cohn, 1983, p. 33).

On the whole, Natriello and Cohn report that the negative factors cited by the teachers they interviewed were "far outweighed by the positive factors" (Natriello and Cohn, 1983, p. 34). All 23 elementary school teachers favored a merit pay plan over other salary and evaluation approaches. This parallels more general assessments by local school administrators, who note that while a significant proportion of Ladue's teachers have complaints about specific aspects of the plan, their overwhelming attitude is to change the plan but not to scrap it. Ladue administrators see no serious possibility of discontinuing the plan in the foreseeable future.

Indeed, these administrators, as well as the teachers interviewed by Natriello and Cohn, report that the merit pay plan has been an effective motivator for the majority of Ladue's teaching personnel. However, it is the formal recognition given to excellence, rather than the monetary award, that is believed by many to be the most important motivator associated with Ladue's merit pay plan.

Ladue administrators are uncertain of the extent to which Missouri's meet-and-confer labor law has played a role in making the merit pay plan feasible. In particular, they are not sure whether such a plan would work in an adversarial setting. Nevertheless, they note that if workable mechanisms exist for solving problems between labor and management, such a plan would probably have a chance anywhere.

Sources

1. Mark Silva, "Teacher Merit Pay Plan Gets Improving Grades," *Miami Herald* (August 8, 1983), pp. 1A, 4A.

2. Educational Research Service, "Merit Pay Plans for Teachers: Status and Descriptions" (Arlington, Virginia, 1983), pp. 41-42, 87-94.

3. Gary Natriello and Marilyn Cohn, "The Evolution of a Merit Pay System," Unpublished Report, Johns Hopkins University (Baltimore, Maryland, 1983).

4. James P. Steffensen, *Merit Salary Programs in Six Selected School Districts*, Bulletin 1963, No. 5, U.S. Department of Health, Education, and Welfare (Washington, D.C., 1962).

5. John T. Shaughnessy, Jr., "Merit Pay: A Functional Analysis of Teacher Evaluations Written by Administrators," Unpublished Doctoral Dissertation, Columbia University (1976).

6. Telephone Interview with Dr. John Shaughnessy, Associate Superintendent for Personnel, Ladue School District, December 1983.

7. Telephone Interview with Gary Natriello, Sociology Department, Johns Hopkins University, December 1983.

8. Various descriptive materials and references on the plan provided by the school district.

senior high schools. The elementary school teachers interviewed by Natriello and Cohn attributed much of that dissatisfaction to the sharing of salary information by secondary school teachers. However, many other theories have been offered to explain the reported dissatisfaction of Ladue's secondary school teachers, and no single explanation seems sufficient (see, for instance, Natriello and Cohn, 1983, p. 33).

On the whole, Natriello and Cohn report that the negative factors cited by the teachers they interviewed were "far outweighed by the positive factors" (Natriello and Cohn, 1983, p. 34). All 23 elementary school teachers favored a merit pay plan over other salary and evaluation approaches. This parallels more general assessments by local school administrators, who note that while a significant proportion of Ladue's teachers have complaints about specific aspects of the plan, their overwhelming attitude is to change the plan but not to scrap it. Ladue administrators see no serious possibility of discontinuing the plan in the foreseeable future.

Indeed, these administrators, as well as the teachers interviewed by Natriello and Cohn, report that the merit pay plan has been an effective motivator for the majority of Ladue's teaching personnel. However, it is the formal recognition given to excellence, rather than the monetary award, that is believed by many to be the most important motivator associated with Ladue's merit pay plan.

Ladue administrators are uncertain of the extent to which Missouri's meet-and-confer labor law has played a role in making the merit pay plan feasible. In particular, they are not sure whether such a plan would work in an adversarial setting. Nevertheless, they note that if workable mechanisms exist for solving problems between labor and management, such a plan would probably have a chance anywhere.

Sources

1. Mark Silva, "Teacher Merit Pay Plan Gets Improving Grades," *Miami Herald* (August 8, 1983), pp. 1A, 4A.

2. Educational Research Service, "Merit Pay Plans for Teachers: Status and Descriptions" (Arlington, Virginia, 1983), pp. 41-42, 87-94.

3. Gary Natriello and Marilyn Cohn, "The Evolution of a Merit Pay System," Unpublished Report, Johns Hopkins University (Baltimore, Maryland, 1983).

4. James P. Steffensen, *Merit Salary Programs in Six Selected School Districts*, Bulletin 1963, No. 5, U.S. Department of Health, Education, and Welfare (Washington, D.C., 1962).

5. John T. Shaughnessy, Jr., "Merit Pay: A Functional Analysis of Teacher Evaluations Written by Administrators," Unpublished Doctoral Dissertation, Columbia University (1976).

6. Telephone Interview with Dr. John Shaughnessy, Associate Superintendent for Personnel, Ladue School District, December 1983.

7. Telephone Interview with Gary Natriello, Sociology Department, Johns Hopkins University, December 1983.

8. Various descriptive materials and references on the plan provided by the school district.

Lebanon Public Schools
Lebanon, Connecticut

The School District

Lebanon Public Schools consist of two schools (an elementary and a high school), 80 teachers and approximately 1,200 students.

Description of the Plan

Lebanon's merit pay plan was contracted with the teachers' union for the three-year period from 1977 to 1979.

The merit incentive evaluation plan in Lebanon involved bonuses for a teacher's progress in meeting objectives set at the beginning of the school year and for satisfactorily fulfilling the requirements of the teacher's job description. The plan begin in September 1977 and terminated in the third year, about May 1980. Each teacher was required to identify one performance objective for students in terms of subject matter and one process objective. The methods by which achievement of these objectives would be measured were also to be specified. The process objectives indicated the procedures that the teacher would use use to meet the performance objectives. The second part of the evaluation process involved use of the teacher's job description as a checklist to evaluate the teacher's performance in terms of four goals and 20 duties as prescribed by the school district.

At the beginning of the school year, teachers submitted their objectives to the principal for his concurrence. Five times during the year teachers submitted to the principal an interim report indicating the amount of progress. The report could include requested revisions to the original objectives. The principal twice during the year completed job description reports on teacher performance. Teachers were given numerical ratings by the principal based on their performance on the performance objective (up to 200 points), on the process objective (200 points), and on the job description rating (500 points). At the end of May of each year, the principals submitted to the superintendent and school board their recommendations for merit incentive recipients based on the extent to which individual teachers met their objectives and fulfilled the requirements of their job description. (However, the relationship between the numerical rating and the size of the bonus was not clear.) The merit pay was distributed in June.

Teachers at the elementary and high school levels were ranked separately to encourage consistency within each school and in light of differences in teachers' responsibilities between elementary and secondary levels. Those teachers that achieved rankings higher than the expected level of performance were eligible to receive bonus awards. In the first year of the plan (77-78), bonuses ranging from $100 to $500 were paid to 55 of 78 persons (about 70%), with an average bonus of about $270. The bonus size went up in the last two years to $900 maximum for the third year, however.

The plan also covered other staff such as counselors, school psychologists, and library specialists, as well as teachers. Different evaluation forms, relevant to each group's job description, were used.

Evaluation of Plan

The Lebanon plan was introduced by the school superintendent and was initially supported by the teachers and the community. But at the developmental stage, even prior to its actual implementation, the plan met with resistance from a newly elected union leadership that did not support the plan ratified by its predecessors. The new leadership, elected in part because of its opposition to the merit pay plan, did not permit formal participation by teachers in development of the plan. The superintendent had hoped for such participation. As the first year progressed, tension increased within the schools. A primary problem was infighting among teachers, which included jealousy and hoarding of materials, creating a divided staff.

Another problem identified by the superintendent was the short time period available to develop the plan--from April 1977 when the contract with the teachers' association was signed until September 1977 when the plan went into effect. This was aggravated by the lack of staff response to the superintendent's request for participation in the development of the plan's details (due in part to the changed attitude of the new association officials).

Another major problem arose after the awards were made shortly before the close of the first year. Although the contract contained a formal agreement calling for confidentiality as to who received the awards, information leaked out, apparently from some teachers. Public disclosure of this information discouraged some teachers. Community problems arose at this time, and parents began to request that their children be assigned to certain teachers.

A critical concern of the teachers was the lack of objectivity in the evaluation process. Teachers felt that the possibility of favoritism left some teachers at an advantage to receive awards. Elementary teachers and the elementary school principal were particularly negative. High school personnel were less negative, perhaps because they tended to be more recent hires. Also, elementary school teachers felt that since they were laying the educational foundation for the students, high school teachers had the predisposition for success, and as such, the elementary teachers should receive a larger award than high school teachers.

The district also found that the extra paperwork, including the various interim reports, became a significant burden.

Although the superintendent felt that the plan had a favorable effect on student achievement, the plan was short-lived. He believed there was a noticeable improvement in student learning, e.g. increased scores on tests and greater participation of students in extra-curricular activities. However, no formal evaluation of the plan was conducted. As dissention among staff members grew, reportedly it became "very demoralizing" and eventually led to the plan's demise in 1980 at the end of the negotiated contract term.

Sources

1. Telephone interview with Lawrence E. Ieradi, Director, Howell Cheney Technical School, Manchester, CT (former Superintendent of Schools, Lebanon, CT, from April 1976 to October 1980) in November 1983.
2. Telephone interview with Ann Lord, Secretary to Superintendent of Schools, Lebanon, CT, November 1983.
3. Steve Keeney, "This Neat Little Merit Pay Scheme Gets Down to the Basics." American School Board Journal, June 1978, p. 34.
4. ERS, "Merit Pay for Teachers." Arlington, VA: Educational Research Services, Inc., 1979, pp. 93-102.
5. Various descriptive materials on the plan provided by the school district.

Penn Manor School District
Millersville, Pennsylvania

The School District

The Penn Manor School District consists of eight schools--six elementary schools, one middle school (7-8), and a high school. The total enrollment is currently 4,100 pupils. Non-supervisory personnel belong to the Penn Manor Education Association, an affiliate of the NEA. They bargain collectively over wages and salaries. At present there are 220 persons (teachers, counselors, nurses, librarians, and other non-supervisory staff) in the bargaining unit. Teacher salaries start at $12,000 per year and can go as high as $28,500 per year for teachers with a masters degree and 15 years of experience. The average salary level is $19,000 per year.

Description of the Plan

Penn Manor's merit pay plan provides cash bonuses for outstanding teachers and other members of the bargaining unit based on supervisor observation and ratings. The plan was formally begun in November 1982 and is currently in its second year. It was included as part of a three-year contract with the Penn Manor Education Association signed in August 1982. The agreement stipulates that the Board of Education provide $20,000 in merit pay for each year of the three-year contract. The merit pay provision is in addition to across-the-board salary increases. The plan covers all persons in the bargaining unit--non-supervisory teaching staff, guidance counselors, nurses, librarians, etc. Participation in the merit pay plan is voluntary.

The same amount is awarded to all qualified persons. The size of the award is determined by dividing the $20,000 award pool for a given year (plus any additional reward money authorized by the school board) by the number of persons selected for awards. In the first year of the program, 25 persons (about 11 percent of the covered personnel) earned awards of $1,000 each after the School Board provided an extra $5,000. The additional funds were committed to ensure that the awards would be at least $1,000. (This amount was felt by the School Board Chairman to be necessary if the program was to be an effective motivator.) The first-year bonuses were paid in May, before the end of the school year. The 25 recipients included 23 teachers and two counselors (but no nurses or librarians).

Teacher Evaluation and Selection of Reward Recipients. The procedures for evaluating teachers and selecting recipients have been different in each year of the program. The first-year procedures are described below; second-year procedures are covered later.

During the first year, merit pay candidates had to be nominated for the award. Anyone could submit a nomination. The nominations were made anonymously and had to be received by December 23, 1982. A new evaluation procedure, involving the following eight criteria, was used in nominating and selecting the merit pay recipients:

1. Quality of planned instruction
2. Effective implementation of planned instruction
3. Command of subject area, including depth of understanding and knowledge of current trends
4. Effort and effectiveness in motivating students
5. Accuracy and effectiveness of communications
6. Resourcefulness and adaptability to change
7. Involvement in total school program
8. Rapport with students, staff, parents, and community

The nomination had to indicate qualitatively that the candidate excelled with regard to each criterion. In the first year, 158 of the 222 eligible teachers were nominated.

All nominees were then sent a self-evaluation form on which they were asked to assess and document their performance with regard to each criterion. A five-point scale was employed; however, little was done to define or otherwise anchor the criteria. One-hundred and thirty-one teachers completed the self-evaluation questionnaire and became finalists.

Each finalist was then evaluated by a team of three supervisors using the same criteria and 5 point scale. Different teams were used for different schools. In general, the teams consisted of the teacher's immediate supervisor and two other persons. (For elementary school teachers, the additional persons were principals from other elementary schools; for middle and high school teachers, the committee was usually composed of the teacher's department chairman, an assistant principal, and the school principal.)

Each member of an evaluating team was required to observe the teacher in the classroom for at least 45 minutes (one period or, for elementary school teachers, one subject area). These observations were conducted separately by the members of the team. In some cases they were announced, in some cases unannounced. Each three-person committee had 18-20 candidates to evaluate. After all evaluations were completed, each committee had to consolidate the separate numerical assessments that the committee members had prepared for each candidate and rank order the candidates. All assessments and rankings were completed by April 15, 1983.

The various committee rankings were then synthesized by a five-person steering committee with the help of the various school principals. (The committee consisted of the assistant to the superintendent, the elementary school coordinator, the middle school principal, the high school principal, and a department chairman.) The steering committee asked each school principal to rank the candidates from their school on the basis of the evaluation committee assessments. The steering committee then winnowed down the number of candidates until the number remaining was small enough to provide a significant award for each recipient (given the $20,000 award pool). The committee was unable to reduce the list of candidates to fewer than 25 teachers. Because they felt that it was important for each recipient to receive at least $1,000, the steering committee asked the Board of Education to provide the additional $5,000 needed to permit awards of that size.

The names of the 25 recipients of the $1,000 bonus were announced by the Board. They were also published by the local newspapers.

The performance evaluation process was admittedly very subjective. However, school administrators note that the committee evaluations were generally accepted by the teachers. The school district has been regularly observing and rating teachers (as satisfactory vs. unsatisfactory) for 15 years. Tenured teachers have to be observed at least twice in a given year; new teachers are observed twice each marking period (eight times per year). Since the school district is small, teachers know the evaluators well, and problems concerning the qualifications of the evaluators and the subjectivity of the assessments have not arisen.

No effort was made to allocate the number of awards between the schools or levels. Nine awards went to high school teachers, five to middle school teachers, and eleven to elementary school teachers. Administrators admit to some problems with comparability across schools. For instance, some principals were regarded as more lenient in their ratings than others. To alleviate this problem, the individuals comprising the evaluation team for a given candidate were chosen to provide a balance between harsh and more lenient evaluators. In the case of the high school and middle school, comparability in evaluations was enhanced by having the principal review the evaluations for all persons in his school.

No formal appeal process was specified for the first year of the program. For the second year of the program, principals and evaluators have been informed that a candidate has the right to involve the superintendent or the assistant to the superintendent if there is a difference of opinion between the evaluators and the candidate with regard to the latter's performance.

The merit pay program was drafted over a period of several months by the assistant to the superintendent, the elementary school coordinator, the middle school principal, and the high school principal. While they considered various mechanisms for getting teacher participation, they decided that this would lead to excessive delays. The program was implemented in November 1982, and nominations for the first round of awards were received by December 23, 1982.

There was no formal participation by the Teacher's Association. The latter maintained a formal hands-off approach, although it frequently urged teachers not to return the various questionnaires and rating forms needed to administer the program. No pilot testing was done. The Board of Education accepted without change the plan developed by the four-person committee. After the first year, the Administration asked the teaching staff for suggestions for improving the program. Very few suggestions were received, except with regard to the nominating process. However, there were some complaints that teachers did not understand the program.

No special training has been required, and no additional administrative staff were added to run the program. Once the plan was approved, the principals met with their department chairmen and explained the program. The program was explained to them again during the summer session. The principals also explained the program to all faculty members during regular faculty meetings.

The State Department of Education had no formal or informal role in the Penn Manor merit pay plan. Indeed, the Department of Education has reportedly had a hands-off attitude with regard to merit pay.

Changes After the First Year of the Plan. During the summer of 1983, the Steering Committee sought suggestions from teachers concerning ways to improve the plan. Although the union urged teachers not to respond to the request, a few suggestions were received. One issue was the publication of the names of the award recipients. School administrators, however, feel that since information on the salaries of public employees is a popular topic of local newspapers, the identification and publication of the recipients of the merit awards is inevitable. There were also complaints about the nominating process. Nominations could be made by a friend or by oneself, and many teachers complained that they did not understand why they were not considered for a given award.

For the second year (1983-84), the following changes were made in the merit pay plan:

1. Every employee is to be evaluated (through supervisor observations) at least two times before February 1. This is expected to defuse questions about the adequacy of supervisor assessments of the candidates. It will also provide added documentation on employee performance.

2. The self-nomination process has been dropped. Any employee will be eligible for merit pay awards if two satisfactory evaluations are on file.

3. The evaluation process has been revised. The form has been altered to require ratings of several specific characteristics for each of the eight criteria listed earlier. A total of 28 such items is provided. The teacher is to be rated on a scale of 1 (marginal performance) to 9 (distinguished or outstanding performance) on each of these items (a five-point scale was used during the first year).

Each teacher is supposed to complete the checklist for himself. This self-assessment is not, however, submitted to the teacher's supervisor. The teacher is also required to describe his teaching goals on the evaluation form, what has been done to meet them, achievements during prior years, etc. In addition, the teacher must indicate whether or not he wants to be considered for the merit pay bonus. The description of goals and achievements and the statement on merit pay participation are to be completed by early December and submitted to the teacher's supervisor.

Each teacher wishing to be considered for merit pay is then evaluated by two persons--the teacher's immediate supervisor and the school principal--using the checklist. These assessments are conducted independently. One of the two evaluators must visit the classroom again and assess the teacher's performance. The two evaluators meet and develop a consolidated set of ratings. The average rating score from this consolidated checklist forms the basis for the awards.

Before making their final recommendations, the two evaluators are to meet with each teacher to discuss the ratings they have come up with. The teacher can at that time refer to his self assessment of the items on the checklist and discuss any discrepancies between his ratings and those of the evaluators. If there are unresolvable disagreements, the superintendent or assistant superintendent can be involved.

Evaluation of the Plan

No formal evaluation of the plan has been conducted. The education association claims that the plan has had negative effects on staff members, while school district management disagrees. The following subjective assessments have been provided by school administrators.

BEST COPY AVAILABLE

School administrators report several impacts on teacher behavior that are apparently partly related to the merit plan. Responsible students, when asked informally by the principal, have reported that teachers appear to be trying harder and to be better organized this year than in years prior to the merit pay plan. School principals report that lesson plans (which must be turned in weekly) reflect considerably more thought and represent a marked improvement from previous years. The principals also report more innovation by teachers this year, including new science and math fairs.

Another important benefit of the plan cited by school officials is increased willingness and interest by teachers in volunteering for extra assignments. They report that teachers who never before had offered to help with extra-curricular activities and other voluntary tasks are now seeking them.

School officials note that the district has had more national merit semifinalists this past year than ever before. The officials, however, point out that this could be a coincidence and not a product of the merit pay program.

There have been a few complaints from students that certain teachers who should have received awards did not get them. But no complaints have been received that teachers who had received awards should not have gotten them.

School officials report few negative reactions to the merit pay plan. Although union officials feel that morale has suffered, school principals feel that morale has never been higher and that they had the smoothest school opening ever. They feel that teacher attitudes towards the program are better than expected and that there has been relatively little opposition to the plan, although there are some bugs to be worked out.

No change has been observed in turn-over rates, which are generally low (less than 5 percent). School administrators, however, attribute this to the shortage of jobs for teachers.

All candidate teachers are briefed on the merit pay plan and asked how they feel about it. All have reportedly said that such a program is "great" and that they would like to be paid on the basis of what they produce. One recruit reportedly applied for a job because of the merit pay plan.

School administrators feel that the leadership of the Teachers Association has become negative towards the plan, even though they signed the three-year contract which contains the program. No formal grievances have been filed over the merit pay plan.

No complaints about the plan have been received from parents, and the plan has attracted little opposition from the general public. Of the comments received, approximately two-thirds were supportive of the plan, one-third opposed.

The sole out-of-pocket cost to the school district thus far has been the $25,000 paid in incentive awards--about $114 per teacher in the district. School administrators estimate, however, that at least $50,000 worth of time was spent in the development and administration of the program. No detailed accounting, however, has been undertaken.

Overall, school officials believe that the program has been successful, surprising even some skeptical administrators. They feel that the program has definitely served to motivate teachers to try harder. The motivation reportedly arises not so much from the cash awards as from the recognition now provided to outstanding teachers. Prior to this plan, teachers were evaluated merely as satisfactory or unsatisfactory. The merit pay plan provides a means for identifying a teacher as being outstanding. This has reportedly stimulated good - and even weaker - teachers to try harder.

It is the current intention of the steering committee to provide more awards during the second year of the plan. Since the award pool is fixed, this will mean reducing the size of the bonus given to each recipient. It is felt that the bonuses could be pared back to $750 apiece and still be motivationally effective. (If $25,000 is available, this would permit about 33 awards and cover 15 percent, rather than 11 percent, of the teachers.) The administration feels that it would be desirable to ultimately provide awards for perhaps 25 percent of the teachers.

Suggestions to Others

Penn Manor school officials suggest that administrators interested in instituting merit pay start with an acceptable salary scale for all teachers and add a merit pay pool to it, as Penn Manor has done. The program should not be undertaken if the union views the existing salary levels as unacceptable.

Sources:

1. Burt Schorr, "School's Merit Pay Program Draws Gripes From Losers--and Winners," The Wall Street Journal, June 16, 1983.
2. ERS, "Merit Pay Plans for Teachers: Status and Descriptions," Educational Research Service, Arlington, Va., 1983, pp. 47-48, 119-121.
3. Telephone interview with Jerry Brooks, Administrative Assistant to the Superintendent, December 1983.

Round Valley School District
Covelo, California

The School District

Round Valley has two schools (K-8 and 9-12) plus a continuation high school located near the high school. It has approximately 460 pupils and 23 teachers. It is a somewhat isolated school district in Northern California with "self-motivated, individualistic" teachers. The teachers are represented by the California Teachers Association, an affiliate of NEA.

Description of the Plan

The incentive pay plan provides bonuses of up to $2800 per year per teacher (in addition to any across-the-board cost-of-living increases on the salary schedule). The amount of the award depends on how many of a maximum of 10 points a teacher earns. The 10 points are divided into three parts: up to 4 points are awarded on the basis of teacher initiative in developing a new project or activity; up to 2-1/2 points are awarded for projects involving teacher cooperation with other teachers to achieve a common objective; and 3-1/2 points are awarded based on an evaluation of the teacher by the principal. The plan began in 1980-81; 1983-84 is its fourth year. There is a preset bonus schedule that specifies the size of payment for each point awarded (approximately $280 per point).

Participation is voluntary; however, almost all teachers have participated. In 1982-83 one teacher who objected to the plan on principle did not participate.

In 1982-83 the average award was $1700 with a high of $2400. All but one of the teachers received at least some amount.

Because 25 percent of the award requires joint activity by more than one teacher, the plan is both an individual and group incentive program. For the teacher cooperation projects, the staff is divided into four groups: K-3, 4-6, 7-8, and 9-12. Teachers can develop projects with one or more teachers in their group.

The amounts and winners of the awards are kept strictly confidential to eliminate the necessary tensions and possible embarrassment before students, fellow staff members, and parents.

The awards are determined at the end of the school year and distributed soon after.

All teachers can receive the maximum bonus in any year; there are no quotas. The school board puts into the budget $2800 (the maximum award amount) for each teacher in the school district. The allocation between the two schools, thus, depends solely on the number of teachers in each school.

Currently only teachers are covered by the incentive program, but the school district is planning to adopt a management bonus covering its six administrative personnel, excluding the superintendent.

The bonus plan is covered by the teacher's association three-year contract. The current contract is the second one that includes the plan.

Teacher Evaluation

Both the "teacher initiative" and "teacher cooperation" activities are evaluated by a committee of four people, consisting of the school's principal, a teacher chosen by the union, and two members of the school board. The elementary and high schools have separate committees, but the two board members are the same, providing greater comparability of the evaluations. (The Board of Education can be so heavily involved because of the small size of the district.)

In the fall the committees set the maximum number of points that can be awarded each teacher depending on the committee's judgment of the value of the individual projects. At that time, the teacher and committee determine what criteria the specific project should be evaluated against. (Criteria could include observations of completed projects, judgments about their success, and test score evidence.)

In the Spring, the committees meet with the teachers to review the results of the activities and determine the actual number of points to be awarded. Thus far, test scores have not often been used to evaluate projects.

The actual scores for both the teacher initiative and teacher cooperation projects are determined by vote of the committee. There has been a considerable amount of consensus among committee members. There is no formal appeal process, but teachers can appeal to the committee. There was one appeal in 82-83 which was reviewed but turned down by the committee.

For the evaluation by the principal (comprising 35 percent of the points), two approaches are used. First, the principal makes three classroom observations over the year (the contract with the association calls for a minimum of two observations). Second, each teacher in the fall develops with the principal a plan for evaluation. (Such a plan is required by state law, but the state requires this every other year whereas the school district does this every year.) The principal in the Spring judges the extent to which the teacher has achieved the plan. The principal's rating could be based primarily on judgmental factors or, depending upon the nature of the plan, on more objective criteria such as test scores.

The superintendent is not involved in determination of who receives awards or their size.

Evaluation of the Plan

No formal or informal evaluation has been undertaken of the plan. No evidence has been collected on such elements as changes in student test scores, teacher retention and absenteeism rates, or on the viewpoints of the community, parents, pupils, or teachers. The superintendent (who came to the district in May 1983) suspects that there has not been a substantial impact on student learning--not because of the plan itself, but because of the lack of any focus by specific objectives. He hopes in the future to obtain more specific guidance from the school board on specific objectives such as to improve student reading or vocational education and then to encourage these as a focus of teacher projects.

The superintendent did feel, however, that the plan was definitely encouraging teachers to do constructive things. Teacher projects have included such activities as teaching library skills to junior high school students during a teacher's preparation period (the project of a first grade teacher with a master's degree in library science), offering an elective course on advanced mathematics to eighth graders (a project of a second grade teacher), and working together to establish writing, health, and physical education programs. Some teachers have earned merit points for cooperative efforts in organizing contests and extracurricular activities.

The teachers have been cooperative, with only a small number of exceptions. The union has been cooperative; as noted, basic elements of the plan are included in the teacher's contract.

The primary element of cost for the program is for the grant awards (which averaged $1700 per teacher in 1982-83). A small amount of added clerical work is required for processing the paperwork, and committee members spend substantial time in meeting with teachers and assessing projects in the Fall and Spring.

Sources of Information

1. Brian T. Burke, "Merit Pay for Teachers: Round Valley May Have the Answer," Phi Delta Kappan, December 1982, pp. 265-266.

2. "Merit Pay Plans for Teachers: Status and Descriptions," Educational Research Service, Inc., 1983, p.32.

3. Telephone Interview with Leo St. John, Superintendent, Round Valley School District, Covelo, California, December 1983.

Seiling Oklahoma Public Schools
Seiling, Oklahoma

The School District

Seiling is a very small district with an enrollment of approximately 550 pupils. It has one facility covering K-12 and approximately 44 teachers.

For the 1983-84 school year, the beginning salary for a teacher with a bachelor's degree and no experience was approximately $15,000; $20,200 for teachers with 15 years of experience and a bachelor's degree; and $21,500 for teachers with 15 years experience and a master's degree.

Description of the Plan

Awards are based solely on the results of test scores on student achievement. The plan began in the 1979-80 school year and was in its fifth year of operation in 1983-84.

The plan uses both group incentives and individual bonuses. Participating elementary school teachers (Grades 1-6) receive a $500 bonus if reading scores in their school reach the targeted increase. Each teacher whose class reading scores reach the target receives an additional bonus of $250, and each teacher whose class math scores reach the targeted increase receives an additional $250. Thus, participating elementary school teachers can earn a maximum bonus of $1,000.

All participating secondary school teachers (Grades 7-12) receive a $300 bonus if the reading scores in their school reach the targeted increase. In addition, each participating secondary teacher earns a $140 bonus for each of the five classes in which their students reach the goal for that subject or skill area. Thus, secondary school teachers can also earn a maximum bonus of $1,000.

A large proportion of the teachers have received bonuses during each year of the plan. In 1983, 38 of the 43 teachers (88 percent) earned merit pay awards, varying from $300 to $1,000. The average award was $853 (for a total of $32,440). The school bonus has been earned in each of the first four years by both the elementary and secondary school; thus all participating teachers received the basic school bonus ($500 in the elementary school and $300 in Grades 7-12). The superintendent estimated that approximately 70 percent of the teachers have received the maximum of $1,000, indicating that their classes had reached the targeted test score improvement.

Class test score gains are determined by converting the standardized test scores to "normal curve equivalency" points (NCE). These points are averaged for the students in the class. The school gain is determined by averaging the NCE scores for all students in the school. The target for the increase in the NCE score is set by the district administration. It initially was set at two points, but in the third year of the program, a committee of teachers and the principal recommended raising the required test score gain to six points above normally expected gains (two points had proved to be too easy a target).

The school system gives reading and math tests each year, both in the fall and spring. The Comprehensive Test of Basic Skills has been used, and new tests have been developed, particularly for several high school subjects. These have been developed by the teachers with a consultant from Central State University. The Oklahoma University scoring service has scored the standardized tests. Teachers score the other tests with principals checking them. The district uses a micro-computer to calcuate the change scores, each class' and school's averages, and the amount of bonus each teacher will receive. The pre- and post-test scores are keyed into the computer.

The bonuses are provided in addition to across-the-board increases, which have been given each year to all teachers. The state has annually mandated specific across-the-board increases except for 1983-84, but the school district itself gave everyone an increase of $750.

The bonuses are given out at the end of June or early July, as soon as possible after the awards have been determined. The year-end tests are given in April. The two-month delay is primarly for obtaining the test scores from the scoring service.

The plan is voluntary: a teacher wanting to participate signs a separate contract in October acknowledging that the bonus is not to be considered salary and will not be carried forward to the next year. With only rare exceptions, all have volunteered.

Administrators are not included in the plan, nor are band and music teachers, who receive extra pay for those activities.

No attempt has been made to consider differences in student characteristics among classes or over time that might make it harder or easier to achieve the target test scores.

The plan was developed solely by members of the administration, with technical assistance from the State Department of Education. Teachers did not participate. The district, however, uses a teacher advisory council, with two teachers elected from the elementary school and two from the secondary school. It meets about twice a year and suggests modifications to the program. The teachers are members of an NEA affiliate, but the association has not formally participated in the development or implementation of the plan.

Teachers can appeal to the superintendent, but thus far there have been very few appeals.

The district, as required by state law, has an annual teacher evaluation program, with teachers rated annually by the principal. The merit pay plan is intentionally kept completely separate from the teacher evaluation process. If a teacher's classes did not achieve the targeted gains required under the merit plan, the teacher would not be penalized unless the principal otherwise found problems in the teacher's performance. The evaluation is used to identify areas for teacher improvement and for dismissal decisions. The district does not believe that test scores and merit plan results are directly relevant for these purposes.

The state government initially provided technical assistance for the merit plan and helped the district obtain a Title III innovation program grant of $5,000. The state university has subsequently provided assistance in developing and scoring tests. Because of the State's concerns about legal issues with the bonuses, the school system introduced the special voluntary merit pay contracts for individual teachers to assure that teachers understand that the extra pay is based on student performance and is a one-time bonus.

Evaluation of the Plan

The system's main purposes in introducing the plan were to encourage better retention of teachers and better achievements by students. At the school board's request, the school administration undertook an external evaluation during the third year. It found that student gain scores have gone up considerably over those in the fall. The district's scores on the ACT (taken by all students whether or not they intend to enter higher education) indicated significant increases over the period 1979-83.

However, the district has little test score data prior to the beginning of the plan, and thus improvements over the pre-plan periods cannot be demonstrated. For the ACT scores, which are available for the periods 1969 through

1978, there were considerably higher scores during the earlier years with a substantial drop-off occurring in 1977-1979 (before the start of the plan). The administration does not know why these dropped but the scores started back up beginning in April 1980, the first year of the plan. The ACT composite score (17.2 in 1983) is not yet back to the 1969-1976 average of 18.4. The population of Seiling has been fairly stable; there is no indication of a major change in factors such as the socio-economic characteristics of students.

There has been little teacher turnover since the plan began and there is a perception by the administration that the district is able to hire quality teachers, but the district does not have comparable data from before the plan started. It recognizes that business conditions could also have affected its ability to retain teachers.

Though the administration could not point to specific differences in teacher procedures since the plan began, it believes that teachers are now more goal-oriented and more jealous of class time. In some instances teachers have complained about activities that have taken away from the academic time and appear to be focusing on planning activities related to their specific teaching objectives rather than unrelated activities. The superintendent believes strongly that the plan has led to improved student achievement.

There has been little reaction from the parents, though they appear to like the philosophy of pay-for-performance.

Students were interviewed by an outside consultant the third year of the plan. The majority of the students were either positive or neutral towards the plan, but a few suggested that some students controlled their answers in order to reward or penalize certain teachers. To protect the teacher against this, the current procedure is to disregard the lowest 10 percent of the scores on a test.

The teachers interviewed at the time of the evaluation expressed mixed views with some feeling that it had helped them financially and had motivated them. A few teachers said that it had caused more work or that it hurt self-esteem. Then, and in subsequent feedback from members of the advisory committee, teachers expressed concern over the adequacy of the tests.

The major problem expressed by both administrators and teachers is the weakness in the testing, especially whether the standardized tests cover material that the teachers are supposed to teach. The school district is attempting to develop more locally applicable tests that do this better, including skills tests such as for auto repair and home economics courses.

A particular concern of the school district has been the dramatic fall-off of scores in the fall in the following year from the reading and math scores in the spring of the previous year. There is some concern that teachers may not be encouraging students to do well on the tests in the fall (the baseline for determining the change scores for that school year). Though the teachers themselves administer the tests, there are usually two teachers that procter each test, reducing temptations to affect student performance.

The cost of the merit pay plan for bonuses averaged $755 per teacher over all teachers. In addition there have been administrative costs of about $2,000 per year for a computer programmer and clerical costs, plus an annual cost of about $5,000 for the testing services. This additional $7,000 per year contributes an extra $160 per teacher, for a total of approximately $915 per teacher.

Suggestions to Others

The superintendent suggested the following:

- Keep the system simple.
- Base the system on products and outputs (not on inputs).

- Don't take dollars away from salaries to pay for the bonuses.
- Make the system voluntary.
- Do not tie the system into the teacher evaluation process used for considering dismissals and teacher improvement.
- Merit pay should be awarded on an objective basis; the administrator should be taken out of a subjective evaluation role.
- Tests should match the objectives of courses.
- Involve the faculty in decision making, at least in an advisory capacity.
- Make merit pay available to the all that qualify.

Sources:

1. Gerald Daugherty and Gladys Dronberger, "A Merit Pay Program That Works: The Seiling, Oklahoma, Experience," Spectrum, Summer 1983, pp. 3-10.
2. Educational Research Service, Inc., "Merit Pay Plans for Teachers: Status and Descriptions," 1983, pp. 46-47.
3. Telephone Interview with Gerald Daugherty, Superintendent, Seiling Public Schools, December 1983.

Tredyffrin/Easttown School District
Berwyn, Pennsylvania

The School District

The Tredyffrin/Easttown school district consists of eight schools (five elementary, two junior high, and one senior high). There are 326 teachers for 4,400 students. The teachers belong to the Tredyffrin Easttown Education Association which is part of the Pennsylvania State Education Association, in turn affiliated with the National Education Association (NEA). The union engages in collective bargaining over wages and salaries. Under the current 3-year contract, teacher salaries range from $14,500 to $31,019 with an average of $27,500 for teachers with bachelor's degrees.

Description of the Plan

Tredyffrin/Easttown has had two separate incentive plans: (i) the Performance Increments Program and (ii) the Superior Service Program. Only the second one is now used. Each one is described below.

The Performance Increments Program. From 1970-1981, Tredyffrin/Easttown used the Performance Increments program, a system of monetary payments related to job performance. The program was part of the contract package negotiated by labor and management. In 1981, the program came to an end, "negotiated out of the contract."

According to the program, each teacher was given an annual performance rating or score. An amount equal to 2 percent of the salaries of teachers, counselors, nurses, and library personnel was set aside for the performance increments. This total dollar amount was divided by the total of all performance scores to determine, at the end of the school year, a dollar value for each performance point. This dollar value per point was multiplied by each teacher's score to determine the amount of the teacher's merit payment. This amount was added to the base salary without fanfare or publicity.

BEST COPY AVAILABLE

Scores ran from 0 to 60. If a teacher scored less than some pre-specified figure, no award would be given. This "bottom-level" figure was changed from contract to contract. During the last contract (78-81), no "bottom" figure was designated, and almost everyone received some award.

The merit payments were awarded in July of each year, a month after the school year ended. All employees in the bargaining unit--teachers, counselors, nurses, media specialists--from all schools were covered by this plan.

The performance ratings upon which the payments depended were based on classroom observations by the building administrator. Two to six observation visits were conducted for each teacher, some announced and others unannounced. After the observation, the adminstrator discussed the assessment with the teacher. Annual performance appraisals were also part of the basis upon which each teacher was rated.

Teachers also generated their own target goals, but this was done informally between the teacher and the principal. Goals were not necessarily quantified. Teachers also conducted self-appraisals.

Performance criteria included the following:

1. Planning (e.g. "plans for the use of a wide variety of teaching strategies").
2. Climate for Learning (e.g. "shows respect for students as individuals").
3. Directing Learning Activities (e.g. "is effective in directing student interaction").
4. Evaluation of Instruction (e.g. "develops student self-evaluation skills").
5. Professional Attitudes and Conduct (e.g. "is self-motivated").

Each of the above was rated 0-12. The scales were not "anchored". Different evaluation forms were used for nurses, counselors, and library specialists.

Tredyffrin has a very "homogeneous" student body according to our respondent, with 85 percent going on to college; therefore, no effort was made to consider pupil "difficulty" in rating teachers. Evaluation procedures were the same for all the schools.

The Superior Service Program (SSP). The Tredyffrin school district has had this merit bonus plan since 1970. This plan was never part of contract negotiations. From 1970-1979, these merit payments were added to the base salary. Since January 1979, they have been bonus payments. Teachers have to "apply" to the program.

About 4-5 teachers (of the 326) receive the SSP bonus each year (about 1-2 percent). Currently the bonus consists of $750 awarded each year for three consecutive years to each teacher deemed to be "superior." A quota of 4-5 winners is imposed because of the effort required to evaluate applicants.

As in the case of the older program, all teachers, counselors, nurses and others in the bargaining unit in all schools are eligible for SSP payments.

The assessment of teachers is similar to the assessments under the old program with the difference that the rating is conducted by a team of three persons instead of by the building administrator only. The three persons on the team are (i) a central administrator, (ii) a building administrator, and (iii) a peer (teacher) who has received the SSP in the past. No anchored scales are provided. However, the respondent stated that the 3-person team made the assessments more "acceptable" to teachers than were the old 1-person assessments.

SSP awards are made in November of the school year following the performance period and are announced publicly. About 6%-7% of the total instruction staff have received the SSP award at one time or another.

Evaluation of the Plan

No formal evaluation has been conducted of either of the two plans. The Performance Increments Program was "negotiated" out of the contract in 1981. The union preferred across-the-board increases. The subjectivity of the performance assessments was one of the reasons cited by the union for dropping the program. The other reason given was that the average teacher ratings reached about 51-52 out of a total of 60, with the range of scores very small. The result was that almost everyone received a merit payment, thereby distorting the program as a "merit" payment plan. No evidence was available on the validity and reliability of the procedures. No special administrative or other requirements were needed for the plan. No major impacts were reported by the school district.

The Superior Service Program has not involved any significant administrative costs. The bonuses cost the school district about $12,000 per year (about $40 per teacher in the district). The district plans to continue the program. No major impacts were reported by the school district.

Sources

1. Educational Research Service, "Merit Pay Plans for Teachers: Status and Descriptions," 1983, pp. 84-88.
2. Telephone Interview with Mr. John Beatty, Director of Personnel, Tredyffrin/Easttown School District, Berwyn, Pennsylvania, December 1983.
3. Various materials provided by the school district.

Non-Monetary Performance-By-Objectives Plans

Brown Deer School District
Brown Deer, Wisconsin

The School District

The Brown Deer School District currently serves about 1,800 pupils. There are three schools: an elementary school, a middle school (4-8), and a high school. The school district's 125 teachers are affiliated with the NEA and bargain collectively over wages and salaries.

Description of the Plan

For the past eight years, since 1975, the Brown Deer School District has been using various target-setting techniques to help motivate and evaluate teachers. Before that time, the school district utilized a traditional checklist approach for assessing teacher performance. But in 1975, the district began to emphasize the specification and achievement of job targets. Target achievement has not, however, been linked to salary.

In recent years the target-setting process has been de-emphasized somewhat and coupled with other performance appraisal techniques. At present, teachers in Brown Deer can choose to be evaluated under any one of three procedures: (1) a checklist, (2) a modified (shortened) checklist, or (3) an evaluation approach of their own design. About 2 percent currently choose to use the full checklist, 78 percent select the modified checklist, and about 20 percent design their own evaluation approach. Appraisals employing checklists usually involve one or two classroom observations of the teacher during the school year. These observations (each of which involves pre- and post-observation conferences) are conducted by the school principal. As described later, each of the three procedures involves the specification of targets.

Teachers wishing to design their own performance evaluation approach can do so with the concurrence of their principal. Usually these evaluations are based on the teacher's completion of special projects or the achievement of other practical objectives during the coming year. Examples include an attempt to use student evaluations in appraising a teacher's performance, and the development and testing of new teaching techniques (such a project could include an experimental trial of the technique and an assessment of the results by another teacher). If the teacher and the principal cannot agree on a specific evaluation approach, the teacher's proposal is submitted to a panel of two teachers and an administrator who review and resolve the conflict.

Each of the three performance appraisal approaches involves the specification of performance targets. Thus, all teaching staff must set a few targets (commonly referred to as "growth objectives") each year. If the teacher has chosen to be evaluated by checklist, the growth objectives tend to focus on the behaviors and characteristics included in that checklist. Such a focus is not required, however, and many targets involve tasks and objectives not directly related to items on the checklist. Target-setting plays an especially important role for teachers who design their own appraisal approach since the special projects undertaken by those teachers are usually defined in terms of a set of performance targets.

The performance objectives are drawn from several sources: the performance appraisal checklists and the specific behaviors addressed by those checklists, specific problems that have been found in connection with a teacher's performance, job descriptions, and special projects or activities that the teacher wants to undertake. The targets are also supposed to reflect current school and district objectives (copies of these are prominently posted).

Most targets are designed to improve teacher performance and capabilities. Thus, a teacher's performance targets can focus on personal growth (e.g. the completion of specialized courses) as well as instructional procedures and outcomes. An example would be "to review the reading materials at the fourth grade level and determine the need to revise the curriculum." Another example involved two teachers who were cooperating in observing and providing feedback on each other's performance. The performance targets specified by these teachers focused on making the necessary observations and providing the feedback required.

Teachers meet with their supervisors in the Spring to assess the past year's performance and to specify performance targets for the upcoming year. Each teacher sets at least one performance target, and many have several targets. Both the teacher and the supervisor (principal) can propose objectives. However, if there are problems with a teacher's performance, the supervisor usually takes the initiative in proposing targets that focus on the problem areas.

No formal effort is made to adjust for differences between teachers in course assignments or pupil difficulty. (The principals are supposed to take such factors into consideration when assessing teacher performance.) However, administrators attempt to enhance comparability between the schools by holding joint discussions of the performance ratings with all three school principals.

The targets can be modified during the school year if both the teacher and the teacher's supervisor agree to the change. Such modifications are reported to be common.

Feedback on teacher performance and target achievement is provided at least twice a year and in some cases as often as every month. The principal also meets with each faculty member for a formal assessment of overall performance and target achievement at least once a year and sometimes as often as quarterly. Each principal is supposed to spend at least four hours per year supervising the development of each teacher. Part of this time is devoted to a discussion of target achievement. If the specified targets are not being achieved, the principal probes for the reasons why and tries to identify appropriate types of remedial actions. (On the average, only about two percent of the staff is involved in such remediation in a given year.) Poor performance with respect to target achievement is likely to lead to the assignment of specific improvement goals for the next year.

While the school district provides no formal recognition or award for outstanding performance with regard to target achievement, such performance can serve as the basis for a recommendation by the principal to a local committee which selects the recipients of three annual "excellence in teaching" awards. These $500 bonuses (one for an elementary school teacher, one for a middle school teacher, and one for a high school teacher) are sponsored by a local industrial firm.

There is no formal appeal process for persons using the checklist or the modified checklist evaluation procedure, unless a disciplinary action is potentially involved. Teachers choosing to develop their own performance appraisal method can, as noted previously, appeal to a panel of two teachers and one administrator to resolve conflicts between the teacher and the principal over the evaluation procedure to be used. The results of such an evaluation, however, cannot be appealed.

The Teacher's Association did not participate in the development of the original target-setting procedure in 1975. However, the administration worked closely with the Association for eighteen months to develop the option allowing a teacher to design his or her own appraisal approach.

Evaluation of the Plan

Brown Deer's performance targeting program has not been formally evaluated. Administrators are unsure of the impacts of the target-setting effort on students or on teachers, although they feel that it has been responsible for some beneficial changes in teaching practices and procedures. The effectiveness of the target-setting efforts has apparently varied, depending on the principal involved. Some principals have reportedly been successful in utilizing the approach to identify and enhance the strengths of the teaching staff. Others, however, have tended to use the target-setting procedures for highlighting a teacher's weaknesses, a strategy which administrators feel may be motivationally less effective.

The recent changes allowing teachers to design their own evaluation approach are believed by school administrators to have relieved some of the pressure on the target-setting process. The new appraisal option was one of several actions taken to help reverse an apparent decline in Brown Deer's target-setting program. One symptom of that decline was the fact that over the years the goals that were established by the district's teachers had become relatively insignificant and easily achieved. This was believed to be due in part to a growing perception by the teachers that they would be penalized for not meeting their job targets. The teachers responded by specifying less significant targets and goals that were relatively easily achieved.

To avoid the perceived threat that came to be associated with the performance targeting effort (a threat which was, in fact, unwarranted since there were no sanctions for not meeting one's targets), the performance targets were renamed "growth objectives" and linked with the three alternate appraisal techniques described previously. This de-emphasis of the performance targets was coupled with renewed assurances by school administrators that there were no penalties for being unable to achieve one's targets. Moreover, teachers who still felt that such targets were unfair or otherwise undesirable were given the option of developing alternate appraisal approaches. Administrators feel that by providing such an option, they have eliminated much of the threat formerly associated with the use of job targets. (Note that despite the availability of this option, about 80 percent of Brown Deer's teaching staff have opted for checklist evaluations and the associated performance targets.)

School district administrators believe that teachers generally have a good understanding of the overall evaluation procedure, although some of the specifics (e.g. the target-setting procedure) may not be understood as well.

Administrators report that the target-setting process has imposed no special demands in terms of data processing or other special operating needs.

Suggestions to Others

School administrators in Brown Deer suggest that perhaps the greatest stimulus to teacher performance is the provision of non-monetary recognition--the knowledge that others know and care about the teacher's performance. The administrators feel that by providing teachers with an opportunity for developing their own individual performance appraisal procedures, they have underscored the administration's commitment to recognizing and evaluating teachers as individuals. Brown Deer school administrators suggest that more frequent observation of, and feedback on, teacher performance may in itself increase productivity by enhancing teacher recognition, morale, and the overall operating climate.

Sources:

1. M. Donald Thomas, Performance Evaluation of Educational Personnel, Phi Delta Kappa Educational Foundation (Bloomington, Indiana, 1979), pp. 36-37.

2. Telephone interview with Mr. Kenneth Moe, Superintendent of the Brown Deer School District, December 1983.

Hyde Park Central School District
Hyde Park, New York

The School District

The Hyde Park Central School District serves approximately 4,200 students. It consists of five elementary schools, one junior high school, and a senior high school. Currently the district has about 250 teachers. They are represented by the Hyde Park Teachers Association, an NEA affiliate, and bargain collectively over wages and salaries.

Description of the Plan

Hyde Park introduced a classical, non-monetary management-by-objectives (MBO) plan in 1972. It lasted until 1978 when a more limited application of target-setting was adopted. The latter program continues to the present time.

Hyde Park's original MBO plan was initiated in the wake of increased demands for teacher accountability and the need to provide better supporting data for tenure recommendations. The school board instructed the administration to develop a more systematic procedure for appraising teacher performance. The plan was developed through the joint efforts of teachers and administrators. After reviewing a variety of performance appraisal procedures, the group decided on a version of MBO. The plan was pilot tested with 60 teachers (about one-quarter of the staff) for the first five months of 1973. At the same time, teachers and supervisors were given extensive in-service training in performance appraisal. The training included discussion groups, role playing, and assistance from well-known MBO consultants.

The school board established a number of district-wide performance goals on basic student skills. Input from the community and from staff was used in preparing these goals. The district-wide goals provided a focus for teachers setting their own job objectives.

Hyde Park's initial MBO system involved five steps:

1. Identification of Performance Areas. Four general performance areas were identified: instructional skills, management ability, professional responsibility, and professional qualities. Each area was broken down into sub-areas which were further defined and illustrated with examples of appropriate behavior. For instance, the general area of "instructional skills" was broken into "planning and organization," "appropriateness of materials," "resourcefulness and adaptability," "ability to motivate," "use of resources," "classroom techniques," and "parent relationships." Among the desirable behaviors listed under "ability to motivate" were: deals with each student according to his needs; uses a variety of classroom activities; varies assignments according to student needs; etc. The teacher and the teacher's supervisor jointly reviewed these lists of behaviors and identified an (unspecified) number of specific job objectives on which to concentrate. Generally these involved areas of performance that needed strengthening, improving, or maintaining.
2. Setting of Individual Objectives. The teacher and the teacher's supervisor next determined the teacher's objectives for the coming year. The objectives were supposed to be specific (and be quantitative where possible) and to identify what data were needed to monitor progress and what would constitute meeting the objective. Some examples:

> The teacher will concentrate on individualizing the mathematics program by developing a diagnostic and prescriptive approach to the skills areas taught, having at least 70 percent of the students achieving at grade level or above on the May 19__ State Achievement Test.
>
> The teacher will increase by at least 1.5 years the reading level of those students identified by the PEP Test as being below minimum competency.

> The librarian will initiate the "One-To-One" reading program for students in grades 4-6. The number of books read by students should increase by 10 percent over the previous year.

Although the objectives were expected to vary considerably from teacher to teacher, all objectives were supposed to focus on one of three areas: student progress, teacher performance, or overall program attainment (district-wide objectives). In some cases, building-wide objectives were also established for specific schools.

3. Development of Work Plan. After the objectives were identified, a detailed plan for achieving them was prepared. This also involved determination of the evidence that would, at the end of the appraisal period, indicate the extent to which the targets had been achieved. Procedures for collecting the necessary data were also agreed on.
4. Monitoring of Performance. Provision was made for regularly monitoring the performance of each teacher and for providing feedback on target achievement. (No general requirements on the frequency of that feedback were specified.)
5. Conferencing and Follow-up. At the end of the evaluation period, a conference was held between the supervisor and the teacher. Performance during the period was reviewed, and possible job objectives for the next round of appraisals were discussed.

The foregoing procedures adhered closely to the traditional MBO process recommended by private sector consultants.

As time went by, however, the number and quality of the objectives being prepared declined, according to district officials. A more limited application of target-setting was adopted by the school district beginning with the 1978-79 school year.

In the current program the evaluation procedure now relies primarily on supervisor observations. Target-setting is used in only a limited way, primarily as an *adjunct* to the teacher evaluation system, and then only for non-tenured staff and tenured staff with performance problems.

An appraisal project is *required* to be completed by each non-tenured teacher during the first three years on the job. The appraisal project is jointly defined by the teacher and the teacher's supervisor. It includes a set of objectives, criteria and procedures for assessing target achievement, and a standard for identifying when the objective has been achieved. A standard format is utilized for preparing the target, and both teacher and supervisor sign off on it. Appraisal projects generally last from 6 to 12 months and focus on a single specific area. Only one such target is assigned to a teacher at any given time.

In the case of tenured staff, appraisal projects are assigned only if there is concern with a teacher's performance. Such projects are usually remedial in purpose and target specific areas of weakness (e.g. planning, classroom discipline, instructional skills, etc.). The contract with the Hyde Park Teacher's Association requires that such a project be undertaken prior to a dismissal action. (Note that the entire teacher appraisal system is specified in the contract.) Appraisal projects can also be assigned to tenured staff at 6 to 12 months and focus on a single specific area. Only one such target is assigned to a teacher at any given time.

These targets can be altered or adjusted as needed during the performance period with one exception, the latter being projects that may lead to denial of tenure. Such targets cannot be altered during the performance period. Regular feedback on target achievement is provided during the performance period. The frequency of such feedback depends on the type of project and ranges from almost daily to about once per month.

No award or other recognition is given for outstanding performance with regard to these targets, with the possible exception (in the case of non-tenured staff) of a letter of commendation for the teacher's personnel file. Very poor performance with regard to the assigned targets can of course result in dismissal or denial of tenure.

Evaluation of the Plan

There was no formal evaluation of Hyde Park's MBO programs. District officials reported that student achievement scores rose during the first MBO effort (note that the improvement of such scores was a major District objective at that time). However, as noted previously, the quality and number of objectives specified in connection with the MBO plan declined between 1972 and 1978. One school district administrator reported that Hyde Park's initial MBO program began to lose effectiveness after just a few years.

Hyde Park's current, more limited application of targeting has been reported to be effective for those teachers to whom it has been applied. In particular, the performance of teachers assigned appraisal projects has apparently improved in many cases. The program has also reportedly led to some valuable curriculum development efforts. Note that since the current program is limited to individuals facing potential dismissal or a tenure decision, there is a strong incentive for the targets to be taken seriously. This reportedly accounts in large part for the effectiveness of Hyde Park's current application of performance targets.

As a way to address individual teacher problems and achieve specific improvements in teacher performance, the limited use of performance targets linked to specific appraisal projects appears to have been effective in Hyde Park. However, school officials feel that there are no clear overall motivational advantages to their present approach to targeting as compared with other forms of clinical or summative evaluations or a more comprehensive MBO system.

Suggestions to Others

School administrators made the following suggestions for overcoming the problems identified and for ensuring the effectiveness of an MBO program for teachers, based on their experiences with Hyde Park's first MBO program (Gray and Burns, 1979):

- Supervisors should not overdo the "collegial approach" in developing performance targets and objectives with teachers. Supervisors should take some initiative in target setting, especially in connection with targets reflecting district-wide priorities.
- It is important to prepare a work plan indicating how the targets are to be achieved. At the same time, the supervisor should specify the assistance that the administration will provide to help the teacher achieve the given objectives. Administrators stressed that ideally there should be no surprises during the performance period.
- It was emphasized that the board of education should establish and publicize district-wide objectives using the same format as the objectives to be prepared by lower-level staff.
- The absence of a system of financial penalties or rewards linked to target achievement was viewed by some as detrimental to the motivational effectiveness of the MBO program.
- It was stressed that a teacher's objectives should allow for the unexpected by leaving enough time to handle the crisis situations that will inevitably arise. In the absence of such allowances, the achievement of pre-planned objectives will too often be pushed aside by crises.

On the other hand, Hyde Park school officials noted two potentially serious issues for which they could offer no solutions:

- Contractual specifications of the performance appraisal process reportedly constrained the use of MBO in Hyde Park. In particular, Hyde Park's contract with the Teacher's Association specified the number of appraisals, their dates, and the types of evaluations to be utilized.
- Another problem—one perhaps inherent in developing an MBO program for teachers (but not usually associated with private sector programs)—was the large span of control characteristic of schools.

This meant that a single principal or assistant principal had to evaluate a large number of teaching staff. Such a situation may lead to ineffective evaluations and to reduced motivational effectiveness of the program.

Sources:

1. Frank Gray and Margaret L. Burns, "Does 'Management by Objectives' Work in Education?" Educational Leadership (March 1979), pp. 414-417.
2. "Teacher Appraisal Manual," Hyde Park Central School District (Hyde Park, New York, September 1975).
3. Telephone Interview with Lloyd Jaeger, Assistant Superintendent for Instruction, Hyde Park Central School District, December 1983.

other forms of clinical or summative evaluations or a more comprehensive MBO system.

Suggestions to Others

School administrators made the following suggestions for overcoming the problems identified and for ensuring the effectiveness of an MBO program for teachers, based on their experiences with Hyde Park's first MBO program (Gray and Burns, 1979):

- Supervisors should not overdo the "collegial approach" in developing performance targets and objectives with teachers. Supervisors should take some initiative in target setting, especially in connection with targets reflecting district-wide priorities.
- It is important to prepare a work plan indicating how the targets are to be achieved. At the same time, the supervisor should specify the assistance that the administration will provide to help the teacher achieve the given objectives. Administrators stressed that ideally there should be no surprises during the performance period.
- It was emphasized that the board of education should establish and publicize district-wide objectives using the same format as the objectives to be prepared by lower-level staff.
- The absence of a system of financial penalties or rewards linked to target achievement was viewed by some as detrimental to the motivational effectiveness of the MBO program.
- It was stressed that a teacher's objectives should allow for the unexpected by leaving enough time to handle the crisis situations that will inevitably arise. In the absence of such allowances, the achievement of pre-planned objectives will too often be pushed aside by crises.

On the other hand, Hyde Park school officials noted two potentially serious issues for which they could offer no solutions:

- Contractual specifications of the performance appraisal process reportedly constrained the use of MBO in Hyde Park. In particular, Hyde Park's contract with the Teacher's Association specified the number of appraisals, their dates, and the types of evaluations to be utilized.
- Another problem--one perhaps inherent in developing an MBO program for teachers (but not usually associated with private sector programs)--was the large span of control characteristic of schools.

This meant that a single principal or assistant principal had to evaluate a large number of teaching staff. Such a situation may lead to ineffective evaluations and to reduced motivational effectiveness of the program.

Sources:

1. Frank Gray and Margaret L. Burns, "Does 'Management by Objectives' Work in Education?" Educational Leadership (March 1979), pp. 414-417.

2. "Teacher Appraisal Manual," Hyde Park Central School District (Hyde Park, New York, September 1975).

3. Telephone Interview with Lloyd Jaeger, Assistant Superintendent for Instruction, Hyde Park Central School District, December 1983.

Ridgewood School District
Ridgewood, New Jersey

The School District

The Ridgewood School District has 4,990 students, 360 teachers and ten schools: seven elementary schools, two junior highs (7-9), and a senior high. Most Ridgewood teachers belong to the Ridgewood Education Association, an affiliate of the New Jersey Education Association and the NEA. They bargain collectively over wages and salaries.

Description of the Plan

Ridgewood uses a version of performance by objectives (PBO) in conjunction with its annual performance appraisals of teachers. Success in achieving one's objectives is not linked to monetary rewards.

The PBO program evolved from teacher appraisal procedures initiated by the school district in 1964. These procedures were reviewed and revised five times in the succeeding 20 years, usually to refine and clarify the appraisal procedures or criteria used. The most recent revision of Ridgewood's teacher-appraisal plan occurred in 1979. The primary impetus for these modifications was a change in New Jersey laws affecting teacher evaluations and the desire of the Ridgewood School Board to make their appraisal procedure consistent with the new legal requirements. One result was greater emphasis upon annual goal-setting by teaching staff.

The statute that stimulated these changes was Section 6:3-1.21 of the New Jersey Administrative Code. This statute imposes a number of requirements on the evaluation of teaching personnel, including a stipulation that the teacher evaluation process include both an individual professional improvement plan and an examination of indicators of pupil progress to assess the individual teacher's performance.

Ridgewood's prior performance appraisal procedure had already addressed, at least indirectly, some of these requirements--e.g. the monitoring of pupil achievement and the identification of needed improvements. The pre-1979 teacher evaluation procedure involved subjective supervisory assessments of numerous aspects of instructional competence, professional growth and relationships, and personal characteristics related to teaching. There was also some (limited) goal-setting.

Efforts to make the performance appraisal procedure more compatible with the new state code led to a greater emphasis on target-setting and to the introduction of new sections on the appraisal form dealing specifically with the individual's professional improvement plan and relevant indicators of pupil progress and growth. The phrasing of the statute emphasized the importance of setting objectives. For instance, the statute requires "review of teaching staff members' progress toward the objectives of the individual professional improvement plans developed at the previous annual conference" and "review of available indicators of pupil progress and growth toward the program objectives."

Ridgewood's target-setting process should be viewed as part of the school district's teacher appraisal system. The appraisal system has the following elements:

1. Regular Testing of Student Achievement. All students in the Ridgewood school system are given standardized tests on an annual basis. The California achievement test series is used. Results are provided to teachers by the end of the school year and are carefully examined to identify their implications for future instructional efforts.
2. Supervisory Observations. As required by New Jersey's Administrative Code, the Ridgewood School District conducts in-class observations of

all teaching staff. Non-tenured staff are observed at least three times per year by the school principal and/or a team of evaluators. Tenured staff receive at least one classroom observation per year. Each classroom observation is followed by a conference. In addition, all tenured and non-tenured staff receive a final summary evaluation conference at the end of the year. The in-class observations and the associated conferences address teachers' success in achieving their objectives with regard to professional development and pupil progress, as well as other factors rated on the summary evaluation form (see below).

3. Summary Evaluation Form. A written "Summary Evaluation of Teacher Competence" is completed at the end of the year for each member of the teaching staff. Tenured personnel are rated on three major areas: instructional competence, the teacher as a professional staff member, and personal characteristics as they relate to teaching (such as conscientiousness, moral integrity, maturity, resourcefulness, adaptability, and sense of humor). Several attributes are described under each of these areas and rated as satisfactory or unsatisfactory. (For example, attributes rated under instructional competence include careful planning and sound preparation, recognition of and provision for the individual, students are interested and stimulated by the teacher, teacher has a command of subject matter, effective methods are employed, teacher provides for ongoing evaluation of the achievement of pupils, etc.)

The summary evaluation for both tenured and non-tenured staff includes (1) a discussion of indicators of pupil progress and growth, and (2) an individual professional improvement plan. These two areas, along with various school district and school building objectives, generally constitute the focus for teacher goal-setting efforts in Ridgewood.

The goal-setting process begins in September of each year, when each teacher meets with the teacher's supervisor. They jointly analyze test results for the preceding year, assess their satisfactoriness and the improvements needed, and set objectives for the coming year. In most cases no more than five objectives are specified. While most of the objectives are tailored to the individual teacher, a few may represent group objectives reflecting district or building priorities.

Objectives emerging from the review of the test results generally do not target specific changes in test scores. Instead, such objectives tend to address in general terms the areas needing attention. An example might be "improve the teaching of spelling."

Many of the teachers' objectives are drawn from the professional improvement plan. Such goals can focus on the correction of individual deficiencies as well as the continuation of professional growth. Examples of teacher objectives on professional improvement include:

- Moderate expectations of what teacher and students can accomplish in one year of learning history.
- Make increased provision for differences in learning abilities among students.

Another third important source of teacher objectives is the set of district and building goals established within the school system. The school district usually establishes 4-6 very general objectives, along with a number of related target areas. While these are revised on an annual basis, for the most part they tend to remain stable for a number of years. Examples of district-wide objectives include the following:

- Upgrade computer skills
- Upgrade writing skills

- Continue to refine the use of pupil progress indicators to improve instruction
- Continue to monitor the affirmative action plan

In addition to these district-wide objectives, individual principals can establish specific building-wide goals for their own school.

All teachers are subject to the annual goal-setting process. Teacher evaluation procedures in Ridgewood have been negotiated with the Teacher's Association and are spelled out in detail in the school district's contract with the association. The contract even includes excerpts from the relevant New Jersey Administrative Codes covering performance evaluation of teachers.

However, despite the precise specification of evaluation procedures in the contract document, the target-setting elements of the evaluation process are not specifically mentioned. Thus, many of the details associated with implementing the target-setting procedure are left up to the individual supervisor. For instance, while the teacher may suggest many of the targets for the upcoming year, the supervisor will usually take the initiative in proposing very specific performance improvement targets if there is concern over the adequacy of the teacher's performance. A teacher's flexibility in setting performance targets is also constrained by the need to reflect school and district objectives in the individual targets for the year. Targets can be altered or adjusted during the performance period if both the teacher and supervisor agree to the change.

Teachers are provided feedback on target achievement through the in-class observations and conferences scheduled throughout the year (at least one per year for tenured staff, three times per year for non-tenured staff). Additional feedback is provided during the final summary evaluation conference that takes place at the end of the school year.

The targets do not, however, generally specify the kinds of data and data sources that will be used to assess target achievement. Information on a teacher's progress is drawn from a number of sources: test scores, teacher observations, etc.

There is no formal procedure for adjusting the targets to account for differences in student difficulty or other special circumstances associated with a given teacher or school. However, such adjustments are addressed, in part, by the emphasis given in the evaluation process to differentiated instruction and the importance of recognizing and providing for individual differences among students.

Despite the emphasis on annual target-setting and the monitoring of target achievement, the teacher's performance with regard to the objectives does not play a major role in the overall summary evaluation of teacher performance. The evaluation form does not provide a specific place for assessing target achievement, although a few elements on the form are indirectly related to target achievement. Examples include "sets long-range goals which are clearly recognizable by all" (under the topic careful planning and sound preparation), "carries out the individual professional improvement plan cooperatively developed with supervisor" (under teacher continues to growth professionally), and "contributes to the efforts to accomplish system-wide goals (e.g. academic improvement projects) and specific objectives of the schools" (under recognizes and fulfills total professional responsibilities). Thus, target achievement constitutes less than 15 percent of a non-tenured teacher's performance evaluation; it could conceivably be ignored entirely in assessing the performance of tenured staff. Ridgewood administrators note, however, that performance with regard to target achievement is often described in the "comments" sections that accompany each of the individual performance rating elements.

Outstanding performance with regard to target achievement is rewarded only by a notation in the teacher's personnel file. (The Ridgewood School System does provide an outstanding service award for one teacher per year. This award is rotated annually between elementary and secondary school teachers. Target achievement can, of course, be an element in the recommendation of a teacher for such an award.) Very poor overall performance with regard to the summary evaluation can serve as the basis for denial of tenure or, for tenured staff, the withholding of a performance increment. However, as explained previously, target achievement is only one of a number of factors considered in coming up with a teacher's summary evaluation.

Teaching staff were involved in the development of Ridgewood's original performance evaluation instrument in 1964 and in all subsequent revisions, including the 1979 changes that led to increased emphasis on objective setting. While the teachers involved in the development process were union members, the teachers' association did not have a formal role in the design of the appraisal procedure. Nevertheless, the performance appraisal procedure is incorporated in the language of the teachers' contract. (The school district negotiated with the teachers' association over the actual evaluation forms used.)

The 1979 revisions to Ridgewood's teacher appraisal process were developed over the period of one school year. All revisions were reviewed in faculty meetings before final approval. Although the new evaluation approach and the corresponding performance targets emphasized increased attention to pupil achievements, there was no need for special testing of students since the school system was already administering standardized achievement tests to all students on an annual basis.

and meeting with the individual teacher. However, such evaluative meetings were part of the overall appraisal process and not unique to the use of performance targets.

School administrators report that no major problems have been encountered in connection with the target-setting process. They note, however, that teachers may have lost some flexibility with regard to curriculum development and experimentation because of the inclusion of district-wide and school building objectives. School administrators feel that the presence of such objectives may make teachers somewhat more conformist and less inclined to be creative in the areas addressed by the district-wide objectives.

On the other hand, school administrators believe that the target-setting process has been effective in motivating teaching personnel. It has also helped provide continuity of direction from one year to the next, a result attributed in large part to the development and incorporation of district-wide and school-wide objectives. On balance, school administrators see no major disadvantages to the target-setting effort.

Suggestions to Others

School administrators in Ridgewood recommend that other districts contemplating a performance targeting effort start slowly and work up gradually towards full-scale use of objectives. They emphasize that such programs should be simple and should be developed in close cooperation with professional staff. Finally, they underline the importance of school board participation through the development of realistic, understandable district-wide objectives.

Sources

1. "Goals of the Ridgewood Public Schools," Board of Education (Ridgewood, New Jersey, June 1977).

2. "Board Goals--1980-81 and 1981-82," "District Goals--1982-83," and "1983-84 District Goals," Ridgewood Public Schools (Ridgewood, New Jersey).

3. "Evaluation of the Teacher as Instructor, Staff Member, Person," Guidebook, Ridgewood Public Schools (Ridgewood, New Jersey, 1979).

4. "Summary Evaluation of Teacher Competence," tenured and non-tenured versions, Ridgewood Public Schools (Ridgewood, New Jersey).

5. Telephone Interview with Mr. Robert Sullivan, Director of Personnel, Ridgewood Public Schools, December 1983.

Salt Lake City School District
Salt Lake City, Utah

The School District

Salt Lake City has 37 schools, including 27 elementary, 5 middle (7-8), 4 regular senior high schools, and one high school for adults. There are approximately 1,000 teachers for about 25,000 pupils. The teachers have an association affiliated with the NEA.

Description of the Plan

This is a non-monetary, performance-by-objectives plan. It was begun in the 1973-74 school year and is currently in its 11th year.

The plan uses a pyramidal set of objectives. The school board sets general objectives for the school district as a whole. Recent objectives have included the initiation of cost-saving approaches and school learning achievement goals, though stated in general fashion. Each school has its own school community council that annually sets general school objectives, such as improving school discipline and possibly student learning objectives. The council members include the principal and a minimum of eight parents. The councils also identify procedures for determining the degree to which those objectives are achieved. The K-8 schools also have a permanent set of minimum basic skill objectives covering most subjects. School community councils could include objectives aimed at improvements above those minimum levels.

In the fall, each teacher identifies a set of the objectives, putting them on an "accountability form." These are reviewed with the principal before being accepted by the latter. These teacher objectives cover a wide range of topics with many being process, rather than direct student learning, objectives. At least to some extent, these objectives are intended to reflect the school and school district-wide objectives. For example, in 1982-83 to meet a school district cost-savings objective, some teachers included an objective "to cover each other's classes when a teacher is absent in order to reduce the number of substitutes."

The principal in January prepares a written progress report which goes through the administration to the school board; at the same time, the principal may informally review the progress of individual teachers. The principal meets with each teacher near the end of the year to discuss the extent of achievement of the teacher's objectives. Teachers indicate on the accountability form their perception and evidence of the level of achievement. The principals then add their assessment.

The completed accountability form is kept in the teacher's file for 1-3 years. The results are not used for compensation purposes.

There is no additional teacher evaluation process. Employees who are not making a satisfactory contribution are placed on "remediation." If remediation is not accomplished within 30 days, a formal remediation team is established consisting of a principal, a learning specialist, and two teacher colleagues. The teams work with the person for a 5-month period. At the end of that period a recommendation is made to terminate the teacher or to destroy all records if remediation has been successfully achieved.

There is a review/grievance procedure, especially for the remediation elements.

For the 1983-84 school year a special ad hoc bonus plan based on district-wide cost savings was adopted. No general raises had been appropriated by the state legislature. Instead, the school district decided to provide an across-the-board three percent bonus payment if substantial savings were achieved. By early December the district felt that enough savings had been achieved and awarded the three percent bonus. This bonus is independent of the performance-by-objectives plan, except that cost-saving objectives were included in some school and teacher objectives.

Evaluation of the Plan

There has been no formal evaluation of the performance-by-objectives plan. The district administration indicates, however, that the district was below the national norm before the plan began. The district currently averages two years above the national norm. The school system, however, has not formally tracked such figures as changes in test scores over time. The current administrator of the plan attributes this improvement to the combination of the accountability program and the associated focus on minimum basic skills, and the remediation process. He feels that the system, by establishing objectives to achieve basic skill levels and retaining only those teachers suited to the educational setting, contributed significantly to the improvement. The district has a larger proportion of terminations of teachers as unsatisfactory than any school district in the state and possibly in the country. This is taken as evidence of having achieved its goal of retaining only effective teachers.

Though initially the plan needed substantial selling to the teachers, the school administrators persisted in the mid-70's. Currently the adminstration feels there is only quite minor negative feeling towards to the plan. Parents appear to be supportive; their role as part of the school community councils means that they have a larger say in school activities.

The primary cost of the plan has been its time-consuming nature, required because of the involvement of so many people in the determination of objectives and subsequently assessing performance. There is also additional recordkeeping required for the plan. However, no cost data are available.

Sources

1. M. Donald Thomas, Performance Evaluation of Educational Personnel, Phi Delta Kappa Educational Foundation, Bloomington, Indiana, 1979, pp. 33-36.

2. Telephone interview with Dr. Stanley Morgan, Administrator for Educational Accountability, Salt Lake City School District, Salt Lake City, Utah, December 1983.

3. Various materials provided by the school district.

Santa Clara Unified School District
Santa Clara, California

The School District

The Santa Clara Unified School District consists of 15 elementary, two junior high (7-9), and two senior high schools. There are approximately 12,500 pupils and 650 teachers. Although a few teachers reportedly belong to the AFT, most are members of the United Teachers of Santa Clara, an affiliate of the California Teacher's Association and the NEA. Santa Clara teachers bargain collectively over wages and salaries.

Description of the Plan

Since 1972, the Santa Clara Unified School District has been using a (non-monetary) version of performance by objectives (PBO). The program was originally implemented by school administrators to help improve accountability. An additional stimulus was provided by the passage of California's Stull-Rodda Professional Competency Act, which stipulated (among other things) that all certified teachers must receive periodic performance appraisals. Teachers and administrators in Santa Clara viewed PBO as an attractive strategy for achieving the twin goals of regular performance appraisal and increased accountability. (Prior to the use of PBO, Santa Clara employed a checklist with subjective supervisor ratings of items such as classroom climate, teacher dress, etc.)

The program currently operates in much the same way as it was originally designed. At the beginning of each school year all teachers receive an evaluation packet that includes the school plan (building objectives). Teachers then specify their own objectives for the coming year, including specific targets ("success criteria") and suitable measures for assessing the degree to which those targets have been attained. The objectives usually address student progress in various areas of study (the district has established standards for progress in each academic area and techniques for assessing that progress), as well as classroom control, maintenance of the educational environment, etc. The teacher performance targets for assessing student achievement in each area of study are supposed to be the minimum standards of performance expected for individual students. The support services needed from the school district to facilitate the attainment of the given objectives are also to be specified.

Our respondent reported the following examples to be typical of the objectives that might be specified by an elementary school teacher:

- My students will be introduced to long division using the approved curriculum, and 90 percent will be able to pass an exam in long division.
- My students will write compositions once a week emphasizing good sentence structure.
- We will have a science unit on the Santa Clara Valley, and students will be able to identify area birds.
- I will introduce a social sciences unit on ancient history, and each student will prepare a report on a specific country.

Teachers are usually expected to concentrate on about six objectives (considerably fewer than the number of objectives specified by teachers when the program began). A teacher's performance targets can include personal development goals as well as objectives focusing on teaching outcomes.

The objectives proposed are also supposed to relate to and support the objectives of the district and of the school. Although copies of district goals are not included in the individual evaluation packets, they are posted in each building. District-wide objectives are generally developed for a three-year period. Examples of such objectives (which tend to be very general) have included enhancement of reading scores, more homework, and better discipline. Building objectives are developed for each school by the building principal. These are designed to support the district objectives and to reflect specific building priorities. The building objectives tend to be more specific than the district objectives. For instance, at the primary level, there might be a building objective on raising the standardized test scores in mathematics or language (e.g. if warranted by the previous year's test results). However, school administrators report that building objectives involving teaching outcomes are not usually specified in terms of specific improvements in standarized test scores.

Secondary schools in Santa Clara currently utilize a program of "guaranteed instructional services" which specifies the development of specific skills at specific points in a student's career. Successful teaching of these skills frequently constitutes the basis for the goals or objectives specified by secondary school teachers.

All teachers are expected to draft the objectives themselves and meet with their building principal early in November to discuss and agree on the goals for the year. When agreement has been reached, the teacher and the principal both sign off on the targets. The objectives must also be reviewed and formally approved by the site administrator acting for the school district.

During the year, feedback on target achievement is provided by the school principals. The frequency of feedback depends on the principal; while some principals reportedly provide feedback on a weekly basis, in most instances the feedback is less often. (The official guidelines for the program do not prescribe a specific feedback frequency.) School administrators report that feedback on target achievement has become much less frequent since the PBO program was first implemented in 1972.

It is possible for a teacher's objectives to be revised during the course of the year with the concurrence of all parties. This might occur, for example, if there is a change in teaching assignment or in the mix of students taught. However, Santa Clara school district officials could not recall an instance where such changes have been necessary.

Target achievement is evaluated in March and April (final evaluations of all tenured employees are due in mid-April). Earlier interim evaluations are required of non-tenured staff and teachers whose performance has been below standard.

Each teacher meets with the building principal to discuss target achievement, reasons for under-achievement, and the improvements needed. The principal's assessment of target achievement is based on classroom observations, conferences with the teacher, and any other available data. A formal overall evaluation report covering seven specific areas and roles (e.g. the teacher as a human resource, as an assessor of student needs, as a communicator in the educational process, as an evaluator of student progress and instructional purposes, etc.) is also prepared. Performance is compared to predetermined "standards" derived from role expectations, position descriptions, school plans, student achievement goals and objectives, school board policies, and administrative regulations. (The relationship between a teachers's own performance targets and the "standards" used to evaluate the teacher's performance is, however, left unspecified.)

For each area or role, the supervisor rates the teacher as "outstanding," "effective," or "improvement needed." If "outstanding" or "improvement needed" is checked, the supervisor must provide an addendum with supporting details and, in the case of "improvement needed," a summary of the specific improvements required. Target achievement under the PBO system is often referenced in these supporting statements. There is, however, no place on the evaluation form where the achievement of performance targets is specifically reviewed.

No tangible reward is given for outstanding performance with regard to target achievement. At most, such performance reportedly earns a pat on the back and congratulations from the principal. If performance has been poor, the school district initiates a remediation program for the given teacher. This program involves the establishment of a team of resource people who work with the poorly performing teacher for 60 days. If the teacher's performance does not improve by the end of that period, the teacher can be terminated.

School administrators report that there have been no problems with regard to target comparability between teachers or between schools, even though there are no explicit procedures for taking account of differences in pupil mix or course complexity. Any such adjustments are expected to be made by the principal as the latter sees fit. (For example, if a teacher has several handicapped students, the principal is expected to decrease the class size accordingly.) Nevertheless, the district places considerable emphasis on having teachers tailor their educational techniques to meet the differing needs of indiviual students. Teachers are urged to view this as a major district objective and to incorporate it in formulating their own objectives.

There is an appeal process for disagreements over a teacher's performance targets for a given year. Thus, the teacher has the option of going to the superintendent (or the superintendent's designee) in November to resolve disagreements between the teacher and the building principal with regard to the year's objectives. On the other hand, the substance of the end-of-year evaluation cannot be appealed.

Santa Clara's PBO program required approximately one year to develop. An extensive effort was made at that time to involve teaching staff in the design of the plan through a committee composed of administrators and teachers from all levels. A survey of teacher evaluation needs was also conducted.

In 1976, the committee was reconvened to review the PBO effort. The remediation program was added at that time. The PBO program is currently being reviewed again by a committee of teachers and administrators.

The school district has provided some training to teachers concerning goal-setting and the PBO approach. Most of that training occurred when the plan was first implemented in 1972. More recently, there have been some refreshers on how to write goals and objectives. School administrators in Santa Clara currently feel that most teachers are preparing reasonably good goals and objectives.

Evaluation of the Plan

There has been no formal evaluation of Santa Clara's PBO effort. School administrators we spoke with could not judge the impact of the program on students or on teacher attitudes. They did, however, feel that the setting of goals and objectives has been beneficial. In particular, it forces teachers to plan, and it follows up on plans by monitoring their achievements with respect to that plan. This is believed to improve teaching practices and—ultimately—teacher effectiveness, although no specific examples could be cited. The PBO program was reported to have had no effect on teacher retention or recruitment.

Administrators report that teachers in the Santa Clara school district generally regard the PBO program as fair and objective. The program has not been the target of formal grievances. (However, there were some problems when one administrator failed to rate any of his teaching staff as "outstanding.")

As noted earlier, a committee of teachers and administrators is examining both the overall performance evaluation process as well as the implications of California's new legislation concerning the establishment of master teacher programs. Teachers have also been surveyed concerning their satisfaction with the performance appraisal (and PBO) processes. (No results from that survey are available as yet.)

For the most part, Santa Clara's PBO program has received little attention from the public or the press. An exception, however, is the remediation program for poorly performing teachers. This has received considerable newspaper publicity and is reported to be supported by most parents. (On the other hand, some people have charged that the remediation program is primarily a device to keep from firing teachers.) The names of the teachers receiving remedial help are kept confidential.

There has been no assessment of the overall costs of Santa Clara's PBO program. No extra staff have been needed to operate the program. The remediation effort itself is estimated to cost about $5,000 per year (primarily in release time). In general, two or three teachers need remediation in a typical year.

Overall, school district officials in Santa Clara feel strongly that the PBO technique has been an effective motivator of teaching personnel. Regular goal-setting is credited with stimulating teachers to perform above standard and with making them more effective and more confident in executing their jobs.

However, school district administrators stress the importance of maintaining and periodically revitalizing a PBO effort such as theirs. They note that as the years go by, teachers have tended to develop few new goals and objectives. A recent survey of Santa Clara teachers reportedly suggested that awareness of the PBO program and the associated remediation procedure had slipped. In addition, some principals are reportedly doing a less responsible job of evaluating their staff. The problem is especially acute for secondary school administrators. The latter reportedly spend less time observing teachers and are less likely to "bite the bullet" when there is a need for an unsatisfactory evaluation.

The school district's current review of the PBO program is designed, in part, to address these emerging problems. (Another task of the committee will be to incorporate California's new master teacher program into the PBO process; it is expected that target achievement will be one of the criteria used for selecting master teachers.) A second approach being considered for revitalizing the PBO effort is to rotate building principals more frequently. (Building principals are currently rotated once every seven years, on the average.) It is expected that more frequent rotations could help counter the slow decline in the effectiveness of Santa Clara's PBO process.

Source:

1. M. Donald Thomas, Performance Evaluation of Educational Personnel, Phi Delta Kappa Educational Foundation (Bloomington, Indiana, 1979), pp. 30-32.
2. Telephone interview with Mr. Nick Gervase, Assistant Superintendent for Personnel Services, Santa Clara Unified School District, December 1983.
3. Various materials received from the school district.

REFERENCES AND BIBLIOGRAPHY

References and Bibliography

Aleamoni, Lawrence M. and Pamela Z. Hexman. "A Review of the Research on Student Evaluation and a Report on the Effect of Different Sets of Instructions on Student Courses and Instructor Evaluation." Instructional Science, 1980.

Aleamoni, Lawrence M. "Student Ratings of Instructors." In Millman, 1981.

Anderson, Carolyn S. "The Search for School Climate: A Review of the Research." Review of Educational Research, Fall 1982.

Arlington Education Association. "Teacher Evaluation 1982-83: An Experiment That Failed." Arlington, Virginia: October 1983.

Barrington, Illinois. "Merit Pay in Barrington District 4 Schools." Working paper, District 4 Elementary Schools, Barrington, Illinois, January 17, 1969.

Beckham, Joseph C. "Legal Aspects of Teacher Evaluation." Topeka, Kansas: National Organization on Legal Problems of Education, 1981.

Bell, Terrel H. "Twenty Keys to Successful Rating." American School Board Journal, March 1963.

Blanchard, B. Everard. Illinois Ratings of Teacher Effectiveness Manual. Beverly Hills, California: Western Psychological Services, 1967.

Blecke, A.E. "Encouraging Teacher Support for Teacher Evaluations." NASSP Bulletin, Vol. 66, No. 458.

Boyer, Ernest. High School. Carnegie Foundation, 1983.

Burke, Brian. "Merit Pay for Teachers: Round Valley May Have the Answer." Phil Delta Kappan, December 1982.

Centra, John A. and David A. Potter. "School and Teacher Effects: An Interrelational Model." Review of Educational Research, Summer 1980.

Chaplin, Wayne. "Merit Pay Is Alive and Well and Thriving in Hartford, WI." American School Board Journal, July 1969.

Coalition for the Development of the Florida Performance Evaluation System. "A Study of Measurement and Training Components Specified in the Management Training Act." Tallahassee, Florida: 1983.

Cohen, Peter A. "Student Ratings of Instruction and Student Achievement: A Meta-analysis of Multisection Validity Studies." Review of Educational Research, Fall, 1981.

Congressional Merit Pay Task Force, U.S. House of Representatives. "Task Force Report on Merit Pay." Washington, D.C.: U.S. Government Printing Office, 1983.

Conte, Anthony E. and Eugene R. Mason. Merit Pay: Problems and Alternatives. Perspective Series No. 2. New Jersey State Department of Education, April 1972.

Council of Chief State School Officers. "A Status Report on State Boards of Education, Chief State School Officers, and State Education Agencies." Washington, D.C.: U.S. Department of Education, February 1983.

Cramer, Jerome. "Yes--Merit Pay Can Be a Horror, But Few School Systems Have Done It Right." The American School Board Journal, September 1983.

Dallas School District. "Outstanding School Performance Awards." Draft report. Dallas, Texas: Dallas Independent School District, September 16, 1983.

Darling-Hammond, Linda; Arthur E. Wise; and Sara R. Pease. "Teacher Evaluation in the Organizational Context: A Review of the Literature." Review of Educational Research, Fall 1983.

Daugherty, Gerald and Gladys Dronberger. "A Merit Pay Program That Works: The Seiling, Oklahoma, Experience." Spectrum, Summer 1983.

Dennis, Lawrence J. "Why Not Merit Pay?" Contemporary Education, Fall 1982.

Doob, Heather S. Teacher Performance Contracts. Arlington, Virginia: Educational Research Service, 1974.

Doremus, Richard R. "What Ever Happened to Kalamazoo's Merit Pay Plan?" Phi Delta Kappan, February 1982.

Education Commission of the States. "State Governance of Education: 1983." Denver Colorado: ECS, 1983.

Educational Research Service, Inc. "Teacher Performance Contracts." ERS Research Brief. Arlington, Virginia: ERS, 1974.

Educational Research Service, Inc. "Evaluating Teacher Performance." ERS Report. Arlington, Virginia: ERS, 1978.

Educational Research Service, Inc. "Merit Pay for Teachers." ERS Report. Arlington, Virginia: ERS, 1979.

Educational Research Service, Inc. "Merit Pay Plans for Teachers: Status and Descriptions." ERS Report. Arlington, Virginia: ERS, 1983.

ERIC Clearinghouse on Educational Management. "Merit Pay." Research Action Brief No. 15, February 1981.

Evertson, Carolyn M. and Freda M. Holley. "Classroom Observation." In Millman, 1981.

Feldvebel, Alexander M. "Teacher Evaluation: Ingredients of a Credible Model." The Clearing House, May 1980.

Flakus-Mosqueda, Patricia. "Survey of States' Teacher Policies." Denver, Colorado: Education Commission of the States, October 1983.

Frase, Larry E.; Robert W. Hetzel; and Robert T. Grant. "Merit Pay: A Research-Based Alternative in Tucson." Phi Delta Kappan, December 1982.

Frase, Larry E.; Robert W. Hetzel; and Robert T. Grant. "Promoting Instructional Excellence Through a Teacher Reward System: Herzberg's Theory Appplied." Planning and Changing, Summer 1982.

French-Lazovik, Grace. "Peer Review: Documenting Evidence in the Evaluation of Teaching." In Millman, 1981.

Glass, Gene V. "Teacher Effectiveness." In Walberg, 1974.

Governors' Ad Hoc Committee on Rewarding Teachers for Performance. "A Pocket Guide to Rewarding Teachers for Performance." Draft Report, Education Commission of the States and the National Governors Association, October 18, 1983.

Gray, Frank and Margaret L. Burns. "Does Management by Objectives Work in Education?" Educational Leadership, March 1979.

Greiner, John M., et al. "Monetary Incentives and Work Standards in Five Cities: Impacts and Implications for Management and Labor." Washington, D.C.: The Urban Institute, 1977.

Greiner, John M., et al. Productivity and Motivation: A Review of State and Local Government Initiatives. Washington, D.C.: The Urban Institute, 1981.

Hatry, Harry P., et al. "Motivating Managers: A Guide to Performance Targeting and Performance-Based Pay in State and Local Governments." Washington, D.C.: The Urban Institute, 1982.

Herman, Jerry J. Developing an Effective School Staff Evaluation Program. West Nyack, New York: Parker Publishing Company, 1973.

House Committee on Education and Labor. "Merit Pay Task Force Report." Washington, D.C.: U.S. Government Printing Office, 1983.

Inman, Deborah. "Merit Pay: Is It the Icing Without the Cake?" Draft paper. Stillwater, Oklahoma: Oklahoma State University, Department of Educational Administration, October 1983.

Iwanicki, Edward F. "Contract Plans: A Professional Growth-Oriented Approach to Evaluating Teacher Performance." In Millman, 1981.

Johnson, David W. "Affective Outcomes." In Walberg, 1974.

Jordan, K. Forbis and Nancy B. Borkow. "Merit Pay for Elementary and Secondary School Teachers: Background Discussion and Analysis of Issues." Washington, D.C.: Congressional Research Service, July 27, 1983.

Katzell, Raymond A.; Daniel Yankelovich; *et. al.* *Work, Productivity, and Job Satisfaction.* New York: The Psychological Corporation, January 1975.

Keeney, Steve. "This Neat Little Merit Pay Scheme Gets Down to the Basics." *American School Board Journal*, June 1978.

Kulik, J.A. and W.J. McKeachie. "The Evaluation of Teachers in Higher Education." *Review of Research in Education*, Fall 1975.

Ladue School District. "The Ladue Evaluation and Salary Program." Ladue, Missouri: October 1983.

Latham, Gary P. and Gary A. Yukl. "A Review of Research on the Application of Goal Setting in Organizations." *Academy of Management Journal*, December 1975.

Levin, Dan. "Keep the Science and Math Teachers Happy." *American School Board Journal*, September 1982.

Lewis, Anne C. *Evaluating Educational Personnel*. Arlington, Virginia: American Association of School Administrators, 1982.

Lipsky, David B. and Samuel B. Bacharach. "The Single Salary Schedule vs. Merit Pay: An Examination of the Debate." *Collective Bargaining Quarterly*, May 1983.

Locke, Edwin A.; Norman Cartledge; and Claramae S. Knerr. "Studies of the Relationship Between Satisfaction, Goal-Setting and Performance." *Organizational Behavior and Human Performance*, Vol. 5, 1970.

Lortie, Dan C. *Schoolteacher: A Sociological Study*. Chicago: University of Chicago Press, 1975.

Manatt, R.P.; K.L. Palmer; and E. Hidlebaugh. "Evaluating Teacher Performance with Improved Rating Scales." *NASSP Bulletin*, Vol. 60, No. 401, 1976.

McGreal, Thomas L. *Successful Teacher Evaluation*. Alexandria, Virginia: Association for Supervision and Curriculum Development, 1983.

Miller, Leslie. and Elaine Say. "Here's How Houston Keeps Teachers Happy." *American School Board Journal*, September 1982.

Millman, Jason. *Handbook of Teacher Evaluation*. Beverly Hills, California: Sage Publications, 1981.

Millman, Jason. "Student Achievement as a Measure of Teacher Competence." In Millman, 1981.

National Elementary Principal. Issue on "The Scoring of Children: Standardized Testing in America." Vol. 54, No. 6, July/August 1975.

National Commission on Excellence in Education. *A Nation At Risk: The Imperative for Educational Reform*. Washington, D.C.: U.S. Department of Education, 1983.

National School and Public Relations Association. "When Students Evaluate Teachers." NSPRA, 1974.

National Science Board Commission on Precollege Education in Mathematics, Science and Technology. "Educating Americans for the 21st Century: A Plan of Action." School Board News, September 12, 1983.

Niedermeyer, Fred and Stephen Klein. "An Empirical Evaluation of a District's Teacher Accountability Program." Phil Delta Kappan, October 1972.

Palaich, Robert. "Issues in Compensating Teachers: Policy Options for South Carolina." Denver, Colorado: Education Commission of the States, September 23, 1983.

Pembroke, E. and Edmund Goedert. "What Is the Key to Developing an Effective Teacher Evaluation System?" NASSP Bulletin, Vol. 66, No. 458.

Peterson, Ken and Don Kauchak. "Teacher Evaluation: Perspectives, Practices, and Promises." University of Utah Center for Education Practices, Salt Lake City, Utah, January 1982.

Popham, W. James. "Pitfalls and Pratfalls of Teacher Evaluation." Educational Leadership, November 1974.

Redfern, G.B. Evaluating Teachers and Administrators: A Performance Objective Approach. Boulder, Colorado: Westview, 1980.

Rist, Marilee C. "Our Nationwide Poll: Most Teachers Endorse the Merit Pay Concept." The American School Board Journal, September 1983.

Robinson, Glen E. "Paying Teachers for Performance and Productivity: Learning from Experience." In Concerns in Education, Educational Research Service, May 1983.

Savage, David. "Is There Merit in Merit Pay?" Prepared text of speech given to conference of the Twentieth Century Fund, 1983.

Say, Elaine and Leslie Miller. "The Second-Mile Plan: Incentive Pay for Houston Teachers." Phi Delta Kappan, December 1982.

Schaefer, William and Bruce Read. "A Merit Pay System for Evaluating School Administrators." Evaluating Administrators, January 1983.

Schorr, Burt. "School's Merit Pay Program Draws Gripes from Losers--and Winners." The Wall Street Journal, June 16, 1983.

Schrag, Francis. "It's Time for Merit Pay." Learning, March 1983.

Schwab, D.P. and L.L. Cummings. "Theories of Performance and Satisfaction: A Review." Industrial Relations, October 1970.

Scriven, Michael. "Summative Teacher Evaluation." In Millman, 1981.

Shanker, Albert. "Master Teacher Idea Won't Work." American Teacher, March 1983.

Shaw, Jane S. "Students Evaluate Teachers." Nation's Schools, April 1973.

Singer, Harry, *et al*. "Testing Achievement in Basic Skills." Public Affairs Report, June 1983.

Smith, Nick L. "Alternatives in Teacher Evaluation." Evaluation News, May 1982.

Stedman, Carlton H. "Tennessee's Master Plan for Teachers." Journal of Teacher Education, March/April 1983.

Steffensen, James P. Merit Salary Programs in Six Selected School Districts, Bulletin 1963, No. 5, Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1962.

Thomas, M. Donald. Performance Evaluation of Educational Personnel. Bloomington, Indiana: Phi Delta Kappan Education Foundation, 1979.

Walberg, Herbert J. Evaluating Educational Performance, A Source of Methods Instruments and Examples. University of Illinois, College of Education, 1974.

White, Bayla F., *et al*. "The Atlanta Project: How One Large School System Responded to Performance Information." Washington, D.C.: The Urban Institute, March 1974.

White, Daphne. "Can Merit Pay Work in Education?" American Educator, Winter 1983.

Wicks, Larry E. "Opinions Differ: Teacher Evaluation." Today's Education, March 1973.